

RTO Insider

Your Eyes and Ears on the Organized Electric Markets
CAISO ■ ERCOT ■ ISO-NE ■ MISO ■ NYISO ■ PJM ■ SPP

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June 1, 2021

Texas Legislative Response to Winter Storm Leaves Some Doubting

By Tom Kleckner

Texas lawmakers last week passed a pair of utility reform bills in response to the ERCOT grid's near collapse during February's winter storm, giving them more influence over the grid operator but also creating doubt over the measures' effectiveness.

Senate Bill 2 would overhaul the ERCOT Board of Directors' makeup, shrinking its members from 16 to 11 and task a selection committee, appointed by the governor, lieutenant governor and the House speaker, with choosing the independent directors. Nine of the 11 board seats would be voting members, giving state politicians more influence than before over the grid operator.

The provision emerged from a conference committee late Saturday night and was approved by both chambers Sunday.

"I am pretty upset by this massive change,"

tweeted Cyrus Reed, president of the Lone Star chapter of the Sierra Club. "This should be debated in public, not snuck in a bill in the dead of night!"

The bill would still require all board members be Texas residents. The chair and vice chair have normally come from outside Texas to maintain separation from market participants and lend outside expertise. The board's five non-Texans all resigned in February in the face of political and public outrage over their status. (See *ERCOT Chair, 4 Directors to Resign*.)

SB2 would further order that new protocols or revisions may not take effect until the Public Utility Commission approves their market impact statements.

A separate bill also approved Sunday, *SB3*,

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CPS Energy Wins Round 1 vs. ERCOT (p.17)

Regulators, ISO-NE Discuss Market Changes at FERC Tech Conference

By Jason York and Holden Mann

When it was his turn to ask a question during the opening panel of FERC's technical conference last week on modernizing electricity market design in ISO-NE, Commissioner Mark Christie started with the part of his résumé that includes 17 years as a member of the Virginia State Corporation Commission.

"I'm very sympathetic to state sovereignty and accommodating state sovereignty and

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CAISO Summer Measures Get FERC Approval
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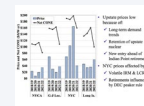
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REUTERS U.S. OFFSHORE WIND 2021 CONFERENCE



Clockwise from top left: Nicole LeBoeuf, NOAA; Kelly Speakes-Backman, Department of Energy; Daniel Hagan, White and Case; Amanda Lefton, BOEM; and Ruth Perry, Shell | Reuters

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10837 Deborah Drive ■ Potomac, MD 20854 ■ (301) 299-0375 ■ info@rtoinsider.com

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Editorial

Editor-in-Chief / Co-Publisher
Rich Heidorn Jr. 202-577-9221

Deputy Editor / Daily	Deputy Editor / Enterprise
<u>Michael Brooks</u> 301-922-7687	<u>Robert Mullin</u> 503-715-6901

Art Director
Mitchell Parizer 718-613-9388

New York/New England Bureau Chief
Jennifer Delony 603-320-7043

MidAtlantic Bureau Chief
K Kaufmann 202-494-4386

Midwest Bureau Chief
John Funk 216-316-5413

Associate Editor
Shawn McFarland 570-856-6738

Copy Editor/Production Editor
Rebecca Santana 770-862-6004

CAISO/West Correspondent
Hudson Sangree 916-747-3595

ISO-NE Correspondent
Jason York 860-977-7830

MISO Correspondent
Amanda Durish Cook 810-288-1847

NYISO Correspondent
Michael Kuser 802-681-5581

PJM Correspondent
Michael Yoder 717-344-4989

SPP/ERCOT Correspondent
Tom Kleckner 501-590-4077

NERC/ERO Correspondent
Holden Mann 205-370-7844

Sales & Marketing

Chief Operating Officer / Co-Publisher
Merry Eisner 240-401-7399

Account Manager
Kathy Henderson 301-928-1639

Account Manager
Phaedra Welker 773-456-4353

Marketing Director
Margo Thomas 480-694-9341

RTO Insider LLC
 10837 Deborah Drive
 Potomac, MD 20854
 (301) 299-0375

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NetZero Insider is now live!
 See p.10 for this week's coverage.

Counterflow

By Steve Huntoon

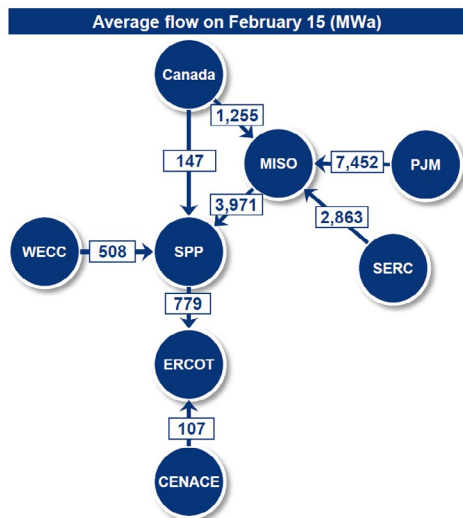
A Modest Proposal

By Steve Huntoon

Texas: Two Imperatives

There are two imperatives at work: (1) inter-regional reliability value and (2) interregional renewable integration value.

We saw the first most recently in February. Massive power flows across regions aided grid reliability (except for Texas).¹



Average flows among regions during Texas' power crisis on Feb. 15 | Wood Mackenzie

And the second — renewable integration — seems vital for the future as we consider the best ways to transmit the most economic renewable energy to load.

Both of these imperatives bring me to Texas. We know that increased import capability into Texas could have helped mitigate the February crisis. And we know that Texas has enormous renewable resources, as shown on this graphic.²

The rub is that Texas doesn't want to give up sovereignty over its electric grid. It would be like asking the Alamo to surrender. OK, I get that. But the consequence is that we end up with proposals for huge DC transmission lines that make little sense³ so that Texas can preserve sovereignty over its grid.

Texas isolation should end. And there's no reason it can't.

The Modest Proposal

FERC can simply issue a policy statement that future interconnections — AC or DC — will

not subject Texas utilities to plenary FERC jurisdiction because FERC will order future interconnections and associated transmission under FPA Section 210 (interconnection) and Section 211 (transmission).

FERC has held that interstate flows arising from its orders under FPA Sections 210 and 211 do not subject ERCOT utilities to plenary FERC jurisdiction: "FPA Section 201(b)(2) ... provides that compliance with an order under Section 210 or 211 will not cause an electric utility to become subject to commission jurisdiction for any other purpose. In other words, it will not, among other things, cause the entity to become a 'public utility' subject to the commission's authority under Parts II and III of the FPA."⁴

There is a common misperception (which was shared by me) that ERCOT's exemption from FERC jurisdiction is grounded in interconnections being asynchronous DC rather than synchronous AC. This is wrong. Ten years ago, FERC explained that the jurisdictional exemption arises from its interconnection/transmission orders being issued under FPA Sections 210 and 211, not from the nature of the interconnection.⁵

Of note, under FPA Section 212(k) the largest Texas utilities, Oncor and CenterPoint, already provide transmission service ordered under FPA Section 211 pursuant to FERC tariffs that, incidentally, are required to follow the Texas commission's ratemaking methodology.⁶ How

about that?

And another note about any engineering issue from synchronous AC interconnections between ERCOT and the Eastern Interconnection: The Eastern Interconnection already synchronizes about 750 GW of capacity stretching from the Gulf of Mexico to Hudson Bay, and from the Atlantic Ocean to the Rockies. I'm thinking it could handle ERCOT's roughly 100 GW.

In Sum

Put this all together and poof! We can get enormous interregional reliability and renewable resource benefits with AC interconnections that do not trigger FERC jurisdiction over ERCOT. Let's do it. ■

1 https://go.pardot.com/l/131501/2021-04-27/2nnv56/131501/1619565489Z0kNMiOZ/WoodMac_Extract_Emerging_winter_reliability_challenge_for_the_energy_t.pdf (right side of slide 4).

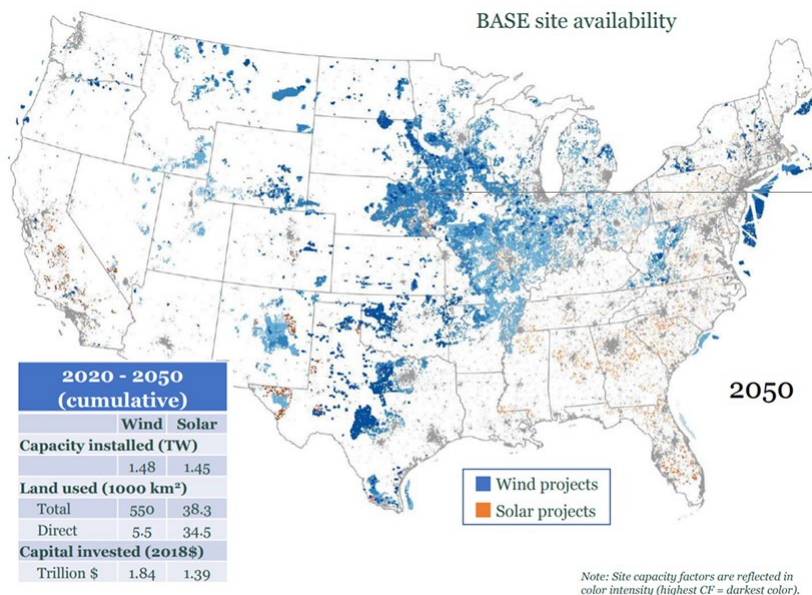
2 https://netzeroamerica.princeton.edu/img/Princeton_NZA_Interim_Report_15_Dec_2020_FINAL.pdf (slide 113).

3 My last column on this is here, <http://energy-counsel.com/docs/Big-Transmission-Still-Not-the-Right-Stuff.pdf>, with footnote links (1 and 2) to earlier writings on this.

4 Brazos Electric Power Cooperative, Inc., 118 FERC ¶ 61,199, at P 3, n. 4 (2007).

5 Southern Cross Transmission LLC, 137 FERC ¶ 61,206, at P 27 (2011).

6 Southern Cross, at PP 33-34.



Note: Site capacity factors are reflected in color intensity (highest CF = darkest color).

Texas has enormous wind resources it could share with neighboring states. | Princeton University

Reuters U.S. Offshore Wind 2021 Conference

'Whole-of-government' Approach Boosts 30x30 OSW Goal



Clockwise from top left: Nicole LeBoeuf, NOAA; Kelly Speakes-Backman, Department of Energy; Daniel Hagan, White and Case; Amanda Lefton, BOEM; and Ruth Perry, Shell | Reuters

By Jason York

The Biden administration is taking a whole-of-government approach to meeting its goal to deploy 30 GW of offshore wind by 2030, a top federal energy official said Wednesday.

Speaking at Reuters' U.S. Offshore Wind 2021 conference, Acting Assistant Secretary of Energy Kelly Speakes-Backman said the road to 30 GW by 2030 could pave the way for the U.S. to become a net-zero economy by 2050, given that the fastest — and most cost-effective — way to get there is the decarbonization of the electric grid.

The effort could also trigger billions in capital investment, create tens of thousands of jobs, generate enough renewable energy to power millions of American homes and significantly reduce carbon emissions. Reaching the target will require the federal government's close coordination with states, private-sector partnerships, unions and other key stakeholders to scale up efforts from concept to construction.

Speakes-Backman said that much of the near-term carbon-free energy is going to be onshore wind and solar PV, though "that's not going to be enough."

"We need every clean energy resource we can get to address this climate emergency," she said.

The Biden administration last week announced plans to offer leases for California's first OSW areas, a 399-square-mile block off Morro Bay that could support 3 GW of resources; the Humboldt Call Area off Northern California is big enough for an additional 1.6 GW. (See related story, [BOEM to Offer Leases for Calif. Offshore Wind](#).)

That "announcement is so significant because this wasn't the Department of Interior in California saying, 'We are going to advance offshore wind in the Pacific,'" said Amanda Lefton, director of the Bureau of Ocean Energy Management. "This was the Department of Interior with the Department of Defense coming together with us and California to say that 'We are aligned, and we have a path.'"

Lefton called it "a sea change for all of us." Expanding to new lease areas is vital because the East Coast has been the primary OSW focus, including the recently approved Vineyard Wind I project off the coast of Massachusetts. She said BOEM is looking at future OSW opportunities in the Gulf of Maine, Gulf of Mexico, the Carolinas and Hawaii.

Lefton also anticipates BOEM issuing a proposed sale notice for New York Bight, an area between Long Island and New Jersey, followed by a public comment period and an auction late this year or in early 2022. BOEM plans to advance new leases and complete a review of at least 16 construction and operations plans by 2025, representing more than 19 GW of OSW.

Nicole LeBoeuf, acting assistant administrator for the National Oceanic and Atmospheric Administration, said there is "real momentum" to put resources toward whole-of-government collaborations. NOAA helped BOEM with data to advance the work on the California leases. NOAA signed a memorandum of agreement with Ørsted to share data in its leased waters subject to U.S. jurisdiction. This first-of-its-kind agreement between an OSW developer and NOAA clears the way for future data-sharing agreements with other developers. NOAA anticipates the data will fill gaps in areas such as ocean mapping and observation to advance climate adaptation and mitigation, weather-readiness, healthy oceans, and resilient coastal communities and economies.

"We know that these collaborations have been ongoing, but to have those marching orders from the top to [encourage] 'whole-of-government' [efforts] is super liberating," LeBoeuf said. "If you're sensing enthusiasm, it is because it's real, and we're just really ready to get started."

Ruth Perry, business environment adviser at Shell, said the Biden administration's 30-by-30 goal has "got everybody energized." She added that federal and state coordination, interagency collaboration and private-sector partnerships could help the U.S. become a leader in a renewable energy, in addition to setting "national objectives of how we're going to get there." ■

Reuters U.S. Offshore Wind 2021 Conference

BOEM Preparing for Offshore Wind Surge

Agency, Developers Looking for Ways to Shorten Approval Process

By Hugh R. Morley

The U.S. Bureau of Ocean Energy Management is looking for manpower and increased efficiencies to handle the added workload of offshore wind permit applications expected from President Biden's goal of 30 GW by 2030, a senior agency official told Reuters' U.S. Offshore Wind 2021 conference Wednesday.

Michelle Morin, chief of the BOEM Office of Renewable Energy Programs' environment branch, said the agency expects to handle at least 16 offshore wind projects by 2025. In response, her department is about to hire seven new employees and expects a 30% staffing increase next year.



Michelle Morin, BOEM
| Reuters

"We've really ramped this up," Morin said in answer to a question about the agency's plan to meet the surge in workload. "We are pulling resources from all over the Bureau of Ocean Energy Management" to help with the OSW permitting process.

The agency also expects to improve efficiency by pooling information that is common to several projects, allowing it to assess how to handle those elements and smooth their evaluation process, she said. That way, she added, "we can really focus on the unique aspects of each project" and whether they meet the criteria for agency permit approval, she said.

Certainty vs. Flexibility

Morin spoke on a panel that focused on how to improve the arduous, often lengthy permitting process needed for projects to secure BOEM approval. The panel highlighted the inherent tension between the desire on both sides to provide predictability in a situation for which there are few historic precedents to provide a guide.

Biden has emphasized renewable energy since the start of his administration, with particular emphasis on OSW power. He aims to create a thriving industry that will create jobs and economic opportunity, including new supply chains that can manufacture and deliver wind turbines for projects.

The administration on May 11 approved its first big offshore wind farm, an 800-MW

project in the waters off Martha's Vineyard in Massachusetts after a decade-long approval process. Massachusetts Gov. Charlie Baker, speaking at the conference Wednesday, said "it took forever for us to get it through the process." (See [BOEM Approves 800-MW Vineyard Wind I](#).) The day before, the administration announced plans to offer leases for California's first OSW areas. (See related story, [BOEM to Offer Leases for Calif. Offshore Wind](#).)

Morin said one obstacle to a project's passage is that it could need the evaluation of 10 or more agencies to get approval. "We're working together, trying to do a one-government approach because this is one environmental impact statement, one record of decision," she said.

But project developers could also take steps to make the permitting process smoother and shorter, she said, by providing as much detailed information as possible early on in the process. She noted that developers say that what they need from BOEM is certainty in the process, especially how long it will take. "We also look for certainty," and that is helped by getting key information early on in the process, she said.

Paul Phifer, permitting manager for Atlantic Shores Offshore Wind, said that aside from certainty of schedule, developers look for predictability in the questions that they may be asked later in the project. Atlantic Shores, a joint venture between Shell New Energies US and EDF Renewables North America, is one of two projects seeking to be designated the developer on New Jersey's second OSW project. (See [Developer to Use Union Labor for NJ OSW Project](#).)

"Having some of the substantive comments come two or three years into project design, for a developer, [is] just too late," he said. One solution would be to get multiple agencies involved in the permitting process as early as possible, he said. Still, he added, there will always be tension between needing certainty in the process and the ability to make changes if needed.

"We're all looking to have maximum flexibility because we don't know exactly often what project technology is going to be available when we start building, or what agreement we might get about purchase power from a state or another entity," he said. "So we need to maintain flexibility. While maintaining that, I think we still could have conversations, an

interagency process, earlier, that give us better guidance and help familiarize the agencies with what we're contemplating."

"I think the more you can design that project with close coordination with the key agencies, you have the best picture to foresee future changes," he said. "Nobody wants a significant change late in the game. I mean, it slows it down. It's costly. You may be under agreement to provide power to the state by certain time. So there's a lot of risks associated with those late changes."

Financing Groundbreaking Projects

Morin added that the agency's ability to bring certainty may improve with time, as more projects go through the process.

"As we conduct more of these reviews, hopefully we'll be able to better predict where there might be points that there could be some risks to the schedule," she said.

Louise Pesce, managing director of Mitsubishi UFJ Financial Group (MUFG), which has helped finance numerous new energy projects, said investors may also get more accustomed to the process as more projects get underway. She called Biden's plan for 30 GW "incredibly ambitious." Investors may see the early projects as higher risk, she said, but that may diminish as the support industries and infrastructure emerge in the U.S., rather than components being imported.

Pesce said she doesn't anticipate a shortage of financing to develop early U.S. projects, in part because offshore projects have proven their worth in Asia and Europe, where the industry is more advanced.

"Banks that have been active in Asia and Europe are very keen and eager to utilize that experience here in the U.S. and add to liquidity available from the more U.S.-centric lenders," Pesce said.

"I think that the construction for the first project is going to be slightly more complicated; I won't say it's more risky, but it is more complex," she said. "There's more components to consider with the U.S. first-mover projects versus the U.K. or the European market, where you have a mature industry of vessels [and a] supply chain established."

Still, she said, "I think that those are similar risks that lenders are used to seeing elsewhere." ■

Reuters U.S. Offshore Wind 2021 Conference

State Officials See Tx as Biggest OSW Challenge

By Rich Heidom Jr.

State officials pursuing offshore wind projects said last week they are happy with support from the Biden administration but need additional federal help on transmission planning and designing clean energy markets to support the infrastructure.

Officials from Connecticut, Massachusetts, New Jersey, New York and Virginia spoke on a panel at the Reuters U.S. Offshore Wind 2021 conference, two weeks after the Bureau of Ocean Energy Management gave final approval for the Vineyard Wind project, which had been delayed by the Trump administration. The approval made the 800-MW Vineyard Wind I the first commercial-scale offshore wind project to win approval in the U.S.

"It's a whole different ball game at the federal level now than it was two or three years ago," said David Lehman, commissioner of the Connecticut Department of Economic and Community Development.



New Jersey Economic Development Authority CEO Tim Sullivan | Reuters

"There's a ton of momentum here," agreed Tim Sullivan, CEO of the New Jersey Economic Development Authority. "There's going to be a North American, North Atlantic offshore wind energy patch that creates a regional industry of great consequence, in a way that fossil

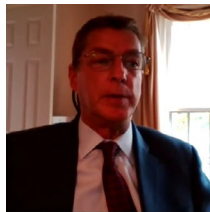
fuels have done for the Gulf [of Mexico]. The [potential] from a job creation perspective is extraordinary."



Secretary Kathleen Theoharides, Massachusetts Office of Energy and Environmental Affairs | Reuters

But Kathleen Theoharides, secretary of the Massachusetts Office of Energy and Environmental Affairs, said long-term transmission planning will be necessary for offshore wind to succeed and states to meet their clean energy targets. "That need is arguably the most significant barrier

to offshore wind buildout in the region and has been a real focus for Gov. [Charlie] Baker and our energy team," she said. "Guidance from FERC to the regional ISOs around the country around the design of clean energy markets and transmission planning is a key piece where the feds could step in and be very helpful."



John Warren, Virginia Department of Mines, Minerals and Energy | Reuters

John Warren, director of the Virginia Department of Mines, Minerals and Energy, said inadequate transmission could increase financing costs. "I see a scenario where our ability to make generation infrastructure far outpaces our ability to distribute the generation," he said. "It's

almost like we've gotten really good at building cars, but we don't have enough roads to drive them on. When it reaches that tipping point, it could impede the further growth and the momentum."

Doreen Harris, CEO of the New York State Energy Research and Development Authority,

said states pursuing OSW are "grappling with [the] need to walk and chew gum at the same time. ... We cannot pause our generation projects and the infrastructure and the investments that we're all making to



NYSERDA CEO Doreen Harris | Reuters

wait for coordinated transmission to emerge and be available. But there are smart ways to do both in parallel. ... I see them as two lanes that will travel in parallel and eventually merge. That's really what we are doing when we look at transmission planning.

"These are incredibly complex projects to advance, but they are indeed necessary for the ultimate buildout on the scale that we are looking at," she continued. "It's one of the reasons that New York is looking at emulating some of the mesh transmission solutions utilized in Europe, because it allows us to move our projects forward and ultimately build the grid ... as the projects are built themselves."

Lessons Learned

Theoharides also shared the lessons learned in Massachusetts, which has conducted three OSW procurements since 2018.

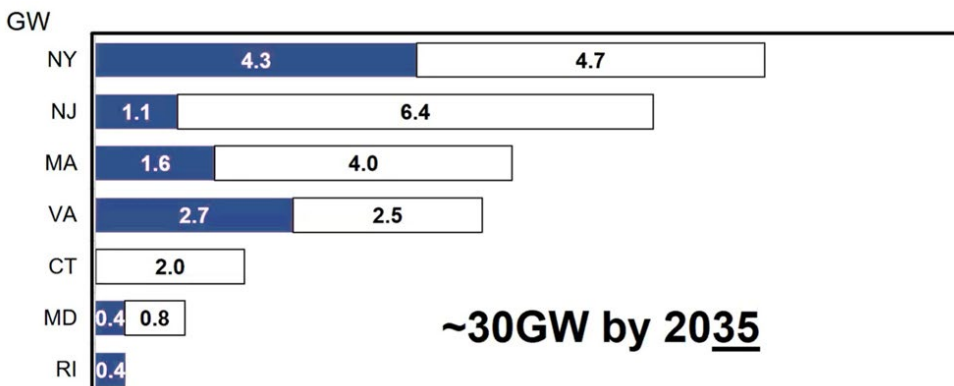
"One strategy we've used ... is giving us enough time between procurements so that our Department of Energy Resources can continue to refine our procurement process. And we've done that since the first project was selected."

After the Trump administration delayed approval of Vineyard Wind's permit in 2019, Theoharides said, "developers put in much [longer] timelines for going through the federal permitting process."

She said the state had benefited from feedback from a wide range of stakeholders, including fisheries, wind developers and environmental justice communities.

"For example, the [request for proposals] issued earlier this month for the third solicitation now allows [proposals of] 200 to 1,600 MW — doubling the [size] of the previous solicitation — consistent with findings ... that by allowing larger-size bids, we could capture some potential efficiencies related to cabling [and] the use of [on-land] connection points.

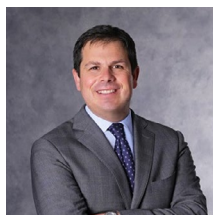
"For our latest RFP ... we've made significant revisions to strengthen criteria regarding



Awarded offshore wind capacity and long-term targets | BloombergNEF

Reuters U.S. Offshore Wind 2021 Conference

impacts and benefits to environmental justice communities," she added.



Commissioner David Lehman, Connecticut Department of Economic and Community Development | Connecticut DECD

Connecticut's Lehman asked whether the states might obtain lower prices from developers by conducting joint procurements. "I think that's a possibility and something we'd be eager to discuss in Connecticut," he said.

"We are very interested in regional procurements in Massachusetts," Theoharides

responded. "And we have been talking to our legislature about including that in future procurements."

30 GW by 2035?

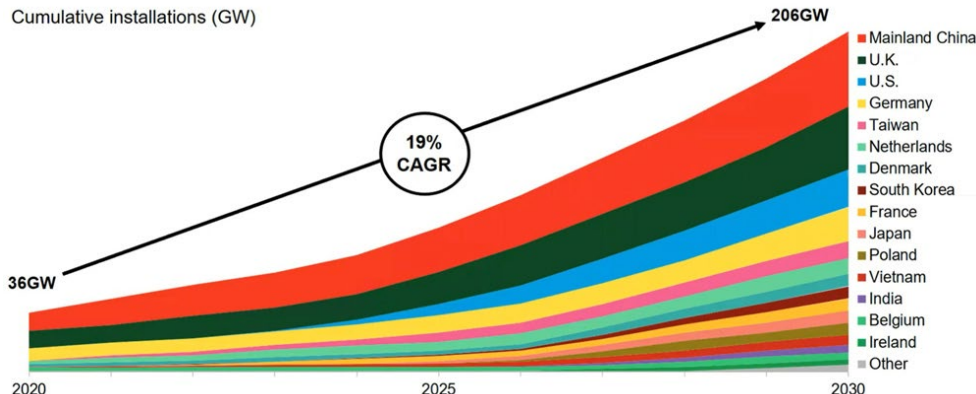


Imogen Brown, BloombergNEF | BloombergNEF

Before the state officials' panel discussion, the conference heard a presentation from Imogen Brown, the head of BloombergNEF's offshore wind research, who predicted fast growth in the U.S. — but not fast enough to reach Biden's target of 30 GW by 2030.

Global OSW is likely to grow from 36 GW in 2020 to 206 GW in 2030, a 19% compound annual growth rate, she said. The surge will be led by China, the U.K., Germany and the U.S., the last of which will have 24 GW by 2030, she said.

Cumulative installations (GW)



BloombergNEF expects global offshore wind to grow from 36 GW in 2020 to 206 GW in 2030, led by China, the U.K., Germany and the U.S. | BloombergNEF

"This is significant growth from where we are — almost at nothing — today. And we expect the U.S. by 2030 to account for about 11% of the offshore wind market."

Bloomberg expects the market to "get kickstarted around 2024" with Vineyard, the 1,100-MW Ocean Wind project off New Jersey and 704-MW Revolution Wind off Rhode Island.

"If you compare it to a market like the U.K., which is very well established — it has been commissioning offshore wind projects for decades ... essentially the U.S. is skipping this ramp-up period. It's going big and going big quickly. If you compare it to Germany, it looks about double Germany's installations across the second half of the decade."

Bloomberg predicts the U.S. will add about 3 GW of OSW annually from 2025 to 2030, short of the 5-GW average needed to reach the 30-by-2030 goal.

"We view the U.S. offshore wind market as a very state-led game; they're the ones that are procuring offshore wind capacity. And they're the ones that are setting targets," Brown said.

The states driving currently driving OSW are New York, with a target of 9 GW; New Jersey (7.5 GW); Massachusetts (5.6 GW); Virginia (5.2 GW); Connecticut (2 GW); Maryland (1.2 GW); and Rhode Island (400 MW).

Bloomberg conducted an assessment to predict which states might be next to join the OSW trend, evaluating factors including resource potential, power prices, onshore wind saturation and renewable energy policies. Based on all the criteria, it ranked California top in the "next phase markets," followed by New Hampshire, Maine, Oregon and Hawaii.

Delaware, Ohio, Michigan, Pennsylvania, Washington, Illinois, Texas, Louisiana and South Carolina were ranked lower as "potential markets." ■

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Reuters U.S. Offshore Wind 2021 Conference

Developer: 10 GW of Offshore Wind Insufficient for California

By John Funk

California's goal to meet its power needs with 100% renewable energy by 2045 makes a suggested offshore wind development target of at least 10 GW insufficient, a major developer said.

"When we look at ... the estimated 145 GW of new renewables and storage that's required to satisfy the [state's] 2045 [zero-carbon] needs, then really, maybe 10 GW aren't ambitious enough for California," Paula Major, vice president of *US Offshore Wind*, said during a panel discussion Thursday at Reuters' U.S. Offshore Wind 2021 conference.

She was reacting to a bill, *introduced* in February by State Assemblymember David Chiu (D), directing state agencies to develop a planning process for offshore wind. Chiu, also a participant in the Reuters conference, explained that the purpose of the legislation is to kickstart planning. California has no offshore wind development yet, partly because its continental shelf falls much more quickly into the ocean than the East Coast's and partly because the U.S. Navy has objected to offshore development because it uses the Pacific Ocean for training.

"There have been many years of interest in offshore wind in California, from policymakers to industry to labor to environmentalists," Chiu said. "But it has been challenging, in part because there are so many regulatory stakeholders at the local, state and federal level.

"What this bill does is set in motion the planning process for infrastructure and permitting. It would specifically ask the California Energy Commission to establish a statewide target, which is important because the East Coast has about 29 GW of state-mandated targets, but the West Coast [has] not yet done that.

"We want to put ourselves on the map as we're having this national and international conversation. This bill also ensures that we're looking at how we lift job creation and environmental considerations. There have been challenging conversations around how we move forward our environmental goals without undercutting our economy and jobs."

Major responded that, while 10 GW is "a great starting point," compared to Europe and the U.K., the U.S. as a whole is "quite conservative." The U.K. has targeted 40 GW by 2030, while Europe wants at least 300 GW, she

said, adding that her company, a division of Ireland-based Mainstream Renewable Power, has developed 5.3 GW globally.

"California has an immense wind resource, certainly in the north, and immense coastline, and we have to remember the technical benefits of offshore wind. It's relatively consistent. It complements the solar production profile and the demand curve. And it has the added benefit of wildfire de-risking if we build transmission offshore," she said.

Michael Olsen, senior director of business development for *Equinor Wind US*, a subsidiary of Norwegian state-owned Equinor ASA, described California's position today as "at a point where the stars have aligned, and we are really ready to go."

"Offshore wind in California, and more specifically floating offshore wind in California, is now more real than ever. We're not talking about science fiction," he said. Equinor has developed and built floating offshore wind in Europe and hopes to do the same in U.S. coastal waters.

Their comments came just days after the Biden administration's announcement that two offshore California areas, a 399-square mile area off Morro Bay and a second area near Humboldt Bay, will be opened to wind development. (See related story, *BOEM to Offer Leases for Calif. Offshore Wind*.)

Lease auctions are expected in mid 2022, said Neco Sumait, chief of renewable energy for the U.S. Bureau of Ocean Energy Management's Pacific Region. The agency has already been contacted by 14 companies, she said.

"Clearly the Central Coast is very attractive because of the existing transmission infrastructure there. The North Coast has really good winds, but it is transmission constrained. I think we're going to pursue the North Coast and the Central Coast in a parallel track, and we will merge them at the right point in the bond process.

"I think now we have a path forward, to be able to allow offshore wind to play a role in the goals that California has for clean and carbon-free electricity," she said.

California Energy Commissioner Karen Douglas said that in the wake of the Biden administration's announcement, the commission is beginning to analyze "the value proposition of offshore wind in different quantities and how it may fit with other technologies" enabling



| Shutterstock

zero-carbon electricity by 2045.

"We have been working with all of the state agencies that have any amount of jurisdiction over any aspect of offshore wind ... the Coastal Commission, State Lands Commission, Department of Fish and Wildlife — for literally years to help prepare for this," she said.

The National Renewable Energy Laboratory's *2020 assessment* of California's offshore wind potential put the total at 201 GW, four times the highest recorded power demand on the state's grid.

Whatever California's ultimate offshore wind development, there will be problems onshore, starting with transmission, suggested panel moderator Sean Moran, a partner with the law firm Vinson & Elkins.

Major warned that without an integrated system to move offshore power, there will be future bottlenecks that will limit the development of the state's full potential, something she said that has occurred in the U.K. because an integrated transmission system was not developed at the start, when developers began siting the first offshore projects.

Douglas said the Energy Commission's initial determination is that the transmission grid in Central California will have no problem taking power from new offshore projects. Even the transmission system near Humboldt Bay, in Northern California, will be able to handle initial projects without major upgrades, though local distribution lines may have to be upgraded.

"The bigger transmission question comes when you start looking at larger numbers [of wind turbines] off the North Coast," she said. "Those are important questions to answer, but we have some time to answer those questions." ■

Reuters U.S. Offshore Wind 2021 Conference

Lenders, Developers Bullish on East Coast OSW

ITC, Biden Administration Goals Cited

By Rich Heidorn Jr.

The Biden administration's climate goals and a new investment tax credit (ITC) have U.S. offshore wind developers bullish about the future of the industry, with proposed projects attracting strong interest from lenders, speakers told the Reuters U.S. Offshore Wind 2021 conference last week.

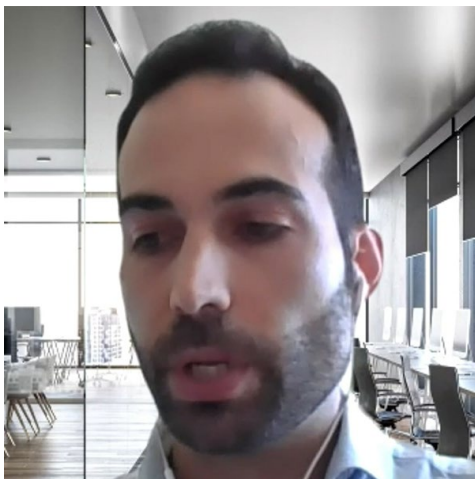
In December, Congress approved a one-year extension of the production tax credit (PTC) for wind developers and a new 30% ITC for offshore projects that begin construction by the end of 2025. (See [Wind, Solar, EE, CO₂ Storage Win Tax Breaks](#).)

"For Vineyard Wind [the ITC] was a big relief," Vineyard Wind CFO Alvaro Ortega Sebastián told the conference, saying it removed the uncertainty that faced wind developers in recent years as tax credits were reduced or expired.

"More [important] than the increase in the ITC ... is certainty," he said. "You know that you have until the end of 2025 to begin construction and then you have 10 years" to finish.

[Vineyard](#) got more good news on May 11, when the Bureau of Ocean Energy Management approved the final permit for 800-MW Vineyard Wind I, making it the first commercial-scale OSW project to win approval in the U.S.

With the permit in hand, Vineyard — a 50/50 venture of Copenhagen Infrastructure Partners and Avangrid Renewables (NYSE:AGR) — expects to close its financing by the end of 2021, with commercial operation targeted for 2023.



Alvaro Ortega Sebastián, Vineyard Wind | Reuters

Hopes for the project were threatened in August 2019, when the Trump administration announced it would postpone Vineyard's final environmental impact statement to conduct an expanded analysis of "cumulative impacts" from the multiple offshore projects proposed for New England. Sebastián said the company feared the delay would undermine the credibility of the OSW market in the U.S. "And we have seen quite the opposite. For the past two years, we have received more interest, more calls, more demand from lenders to participate in our project," he said.

'Attractive Opportunities'

With the Biden administration targeting 30 GW of OSW by 2030 — and Massachusetts, New York, New Jersey, Virginia, Connecticut, Maryland and Rhode Island having awarded contracts for 10.5 GW — Vineyard is far from the only belle at the ball. (See [Biden Administration Marshaling Agencies in Push for 30 GW of Offshore Wind by 2030](#).)

"We've received extraordinarily strong interest already in the project from the lending community," said Justin Johns, CFO of [Mayflower Wind](#), which expects commercial operation in the mid-2020s under a 20-year 804-MW power purchase agreement with Massachusetts' electric distribution companies. There has been interest "from American banks, from the European banks, as well as the Asian banks," Johns said.

Mayflower is a partnership between Shell (NYSE:RDSA), which entered the OSW market in 2000 in the U.K., and Ocean Winds, a joint venture between Madrid-based EDP Renewables (OTCMKTS:EDRVF) and French multinational ENGIE (OTCMKTS:ENGIY). Ocean Winds has 1.5 GW of OSW under construction and 4 GW under development in the U.S., Europe and Asia.

"These are really attractive opportunities" for lenders, agreed CIBC Capital Markets' James Wright, managing director of renewables, clean energy and sustainability (NYSE:CM). "Every single major bank has significant green lending commitments. These are very sizable assets, which will require a lot of financing. The Biden administration's plan to have 30 GW in nine years — that's a lot of capital that's going to have to go into this space."

The size of the projects also means multiple lenders for each project, he added. "A solar



Justin Johns, Mayflower Wind | Reuters

deal or an onshore wind deal would probably have three to four lenders involved, maybe a single tax equity investor," he said. "Here in the offshore space, you're probably talking about double-digit bank groups; maybe more than one tax equity investor; multiple sponsor [companies]. There's actually a lot of financing complexity."

Wright noted that Europe has been building utility-scale OSW for 20 years. "So there's a lot of experience from the European market which we can leverage," he said.

European Experience not Fully Transferable

But Johns said knowledge of the unique challenges of the U.S. also is essential to developing successful projects.

"You can't approach this with the [idea of a] 'lift and shift' of Europe to the U.S.," he said. "We've got to bring European prices into the U.S. but recognize the uniqueness of the U.S. development. ... In the U.S. you've got to figure out the Jones Act," which requires that goods shipped between U.S. ports be transported on ships that are built, owned and operated by U.S. citizens or permanent residents. "You've got grid considerations; you've got ports that need to be built. You got manufacturing [that] still needs to be built out. From a developer's perspective, you need to bring your experience but really bring that intimacy of the U.S. knowledge to it."

That supporting infrastructure also presents opportunities for lenders and manufacturers, Johns said. "This buildout will be much bigger

Reuters U.S. Offshore Wind 2021 Conference

than just projects. It's going to be into the whole supply chain. This will extend into the manufacturing side, into blades, into turbines, into ports and the grids. You name it."

For developers, the U.S. market is a more complicated regulatory environment than, for example, the Netherlands. "The Dutch government ... takes care of the transmission asset. They take care of a lot of that development risk, and you pretty much have one material government interface," Johns said. "In contrast, [in the U.S.] you've got interface with federal agencies; you've got state interfaces; you've got local interfaces. ... The stakeholder management perspective becomes much, much broader."

Watching Steel Prices, Interest Rates

The developers say they are now keeping a close eye on factors that could raise project

costs, such as increases in interest rates or steel prices.

There are also questions about lenders' willingness to offer long-tenor debt and what kind of assurances they will require. "Will lenders seek 15- to 20-year" service and maintenance agreements? "How are they going to think about availability guarantees?" Johns asked.

Project developers should be careful "not to underestimate the financing timetable for projects of this complexity," CIBC's Wright said. "I've yet to see a single onshore renewable deal that meets its original financing timetable."

Despite the increased complexity of OSW projects, Wright said he expects only a small premium in financing them compared to land-based wind.

For competitive reasons, however, he said he wouldn't offer any specifics on the interest



James Wright, CIBC Capital Markets | Reuters

rates he expects. "There's not much more I want to say on that that won't come back to haunt me over the next 30 GW," he joked. ■

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Harbor and Port Upgrades Critical to Atlantic Offshore Wind

ARPA-E Grants to Help Build US Clean Energy Supply Chain

'Disorderly' Move to Net Zero will Sting Economy, Report Says

Setting the Flight Path to Zero-carbon Aviation in 2030

Overheard at ARPA-E Innovation Summit Day 2

MIDATLANTIC

Clean Energy Creates Opportunity, Challenges For Sea Businesses

NJ Proposal Rewrites EV Incentives to Drive Sales

NORTHEAST

Mass. City Begins Transition to Electric School Bus Fleet

'Swift' Transition from Gas Needed, Former NY Regulator Says

WEST

California Lithium Extraction Plans Advance

Arizona Regulators Revive Clean Energy Rules

CARB Adopts Ride-share ZEV Standard

New Report Could Support Adoption of Colo. SB200

Reuters U.S. Offshore Wind 2021 Conference

BOEM to Offer Leases for Calif. Offshore Wind

By Rich Heidom Jr.

The Biden administration last week announced it plans to offer leases for California's first offshore wind areas, a 399-square-mile block off Morro Bay that could support 3 GW, and the Humboldt Call Area off Northern California, which it said is big enough for an additional 1.6 GW.

Interior Secretary Deb Haaland, National Climate Advisor Gina McCarthy and California Gov. Gavin Newsom took part in the announcement of the two potential wind energy areas (WEAs) on May 25.

The announcement followed years of consultation between Interior and the Defense Department to identify areas that would not interfere with the Pentagon's training and testing operations.

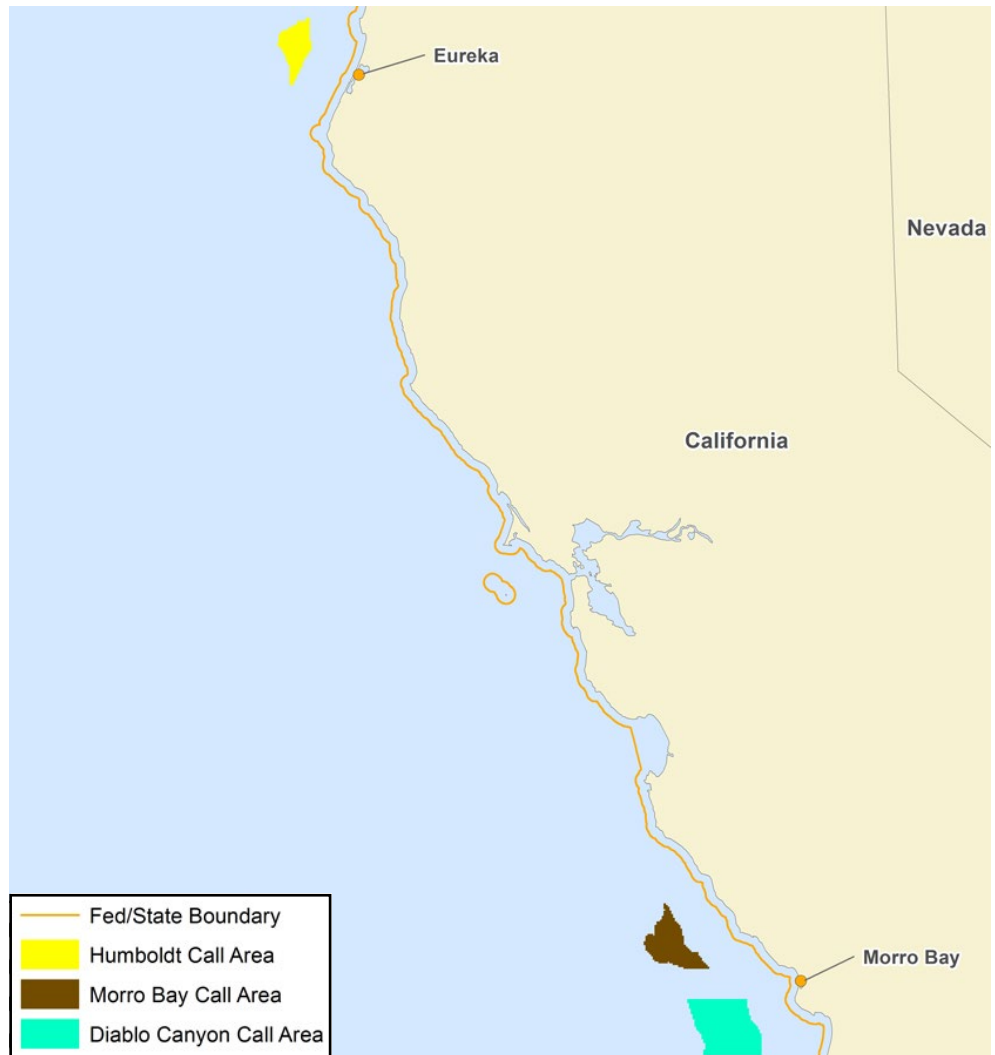
"Tackling the climate crisis is a national security imperative, and the Defense Department is proud to have played a role in this important effort," Under Secretary for Policy Colin Kahl said in a statement. "The Defense Department is committed to working across the U.S. government to find solutions that support renewable energy in a manner compatible with essential military operations."

The Bureau of Ocean Energy Management issued a call for information and nominations for offshore wind on Oct. 19, 2018, for three areas, including Humboldt, Morro Bay and the Diablo Canyon Call Area. Plans for Diablo Canyon were not disclosed in last week's announcement. Fourteen developers responded to BOEM's 2018 solicitation.

BOEM and California officials will hold an Intergovernmental Renewable Energy Task Force meeting on June 24 to discuss the potential WEAs. After the task force meeting, the WEAs can be finalized and undergo environmental analysis. BOEM expects to include both the northern and central areas in a single lease sale auction targeted for mid-2022.

The Biden administration has proposed deployment of 30 GW of offshore wind by 2030, but most of the attention has been focused on the East Coast, which has the advantage of relatively shallow waters on the continental shelf, allowing turbines to be installed in the seabed. The deeper waters of the West Coast will likely require use of floating turbines.

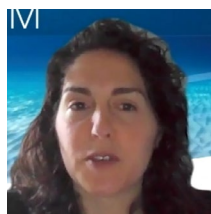
California must triple its renewable capacity to meet its goal of 100% clean energy by 2045.



The Morro Bay area could support 3 GW of offshore wind, and the Humboldt Call Area off Northern California is big enough for an additional 1.6 GW, according to the U.S. Bureau of Ocean Energy Management. | BOEM

Senate Bill 100, which established the goal, envisions 10 GW of offshore wind and more than doubling onshore wind from 6 GW to 12.6 GW.

State Assemblymember David Chiu (D) has proposed legislation that would require the California Energy Commission to set offshore wind targets within three months (*Assembly Bill 525*).



BOEM Director
Amanda Lefton |
Reuters

"I am excited about the opportunity for offshore wind on the West Coast and the Pacific," BOEM Director Amanda Lefton said during an

appearance last week at Reuters' U.S. Offshore Wind 2021 conference. "There is clearly interest from our state partners, and I think there is a tremendous opportunity to move forward."

Experts say the distance between the wind areas and California's ports will be among its biggest challenges in making offshore wind a reality. (See *Port System Big Challenge for Calif. Offshore Wind*.)

"While interest from the global industry will be unprecedented, West Coast development requires American ingenuity and innovation in next generation technologies that will create opportunities for engineering firms and skilled labor," said Liz Burdock, CEO of the Business Network for Offshore Wind. ■

FERC/Federal News



Panelists Point to Macrogrid as Key to Decarbonization

By Rebecca Santana

Speakers on an ARPA-E Innovation Summit panel Wednesday agreed that the transition to renewable energy will require an interconnected nationwide grid.

This macrogrid would facilitate the transfer of clean energy from high-output regions to lower-output regions depending on the time of day, supporting resilience and decarbonization efforts, they said during a session titled “Transmission System of the Future.”

“The power grid of the future is really going to need to unite the country to bring together all of the various clean energy resources we have in various times and places,” NextEra Analytics’ Aaron Bloom said. “Can you decarbonize with other technologies without transmission? Maybe. Probably you could figure out a way. But the key is to do it at a low cost.”

The biggest hurdles to a mass infrastructure buildout are regulatory restrictions, the panelists said. Interconnecting the grid would be the most efficient and cost-effective path to rapid decarbonization, Bloom said, but long interconnection queues and rights-of-way disputes delay transmission projects significantly.

“Transitioning to a grid that relies on no-carbon resources will really require rethinking of the regulatory frameworks,” Elisabeth Treseder of Equinor said.

The panelists agreed that regulatory entities will need to alter their policies to accelerate transmission projects and facilitate their interconnection to the grid.



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“When President Kennedy said, ‘We’re going to the moon,’ he didn’t say, ‘as soon as we get through NASA’s long project queue.’ So if you want more renewables, we as society do need to prioritize transmission,” Direct Connect Development Co. CEO Trey Ward said.

NewGrid President and CTO Pablo Ruiz said, “FERC could have a big role ... on the regulatory front [by] setting the right incentives. ... I think there’s also a role for Congress to lay out the vision and then FERC can help implement. I wouldn’t discount the significance of an infrastructure bill for that.”

Another big hurdle to a mass infrastructure buildout is the cost. “Who’s going to pay for it?” moderator Trisha Miller, of Breakthrough

Energy, asked the panel.

Ward hopes that private capital can be mobilized to cover the cost. Direct Connect is a privately financed HVDC transmission line developer, and he and his team are “very excited” that “President Biden wants to unleash private capital to deploy interregional transmission along existing transportation corridors.”

Ward believes the key to unlocking this capital is an investment tax credit (ITC). He said an ITC is the incentive necessary to kickstart corporate investment in transmission.

“A well funded ITC program would unleash private capital on the largest infrastructure initiative of our generation,” he said. ■

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Regulators, ISO-NE Discuss Market Changes at FERC Tech Conference

Continued from page 1



FERC Commissioner
Mark Christie | FERC

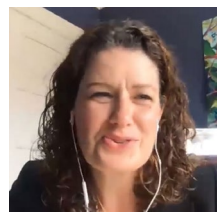
respecting it," Christie said to a group of New England regulators, RTO executives and the chair of the NEPOOL Participants Committee, brought together to discuss the relationship between states' policies and ISO-NE market design.

Contending that the RTO's No. 1 job is to "keep the lights on," Christie asked if states wanted responsibility for their resource adequacy like some others in PJM, MISO and SPP, or a governance change to make ISO-NE more like ERCOT, as in an energy-only market.

"My question to you is: What do you think of those two options?" Christie said.

Matthew Nelson, chair of the Massachusetts Department of Public Utilities, said the fundamental goals of the states and RTO "are almost in lockstep." States like Massachusetts and Connecticut are procuring offshore wind and hydropower on their own, but there should be a market-based mechanism that the states create with ISO-NE and NEPOOL stakeholders to procure clean energy "with an eye toward reliability," he said.

Katie Dykes, commissioner of Connecticut's Department of Energy and Environmental Protection, said that she "respectfully" objected to Christie's presumption of ISO-NE's chief task — and his question.



Connecticut DEEP
Commissioner Katie
Dykes | FERC

"Yes, in Connecticut, we are focused on clean energy, but in addition to that, we have had

to take extraordinary actions in recent years to shore up the reliability of the [ISO-NE] grid and the market," Dykes said. The RTO's capacity market design had been constructed around the investment needs of natural gas resources, she contended. Additionally, when the Millstone nuclear plant was considering premature retirement, ISO-NE and its market "had no plan to address this," and it was left to Connecticut "legislators and ratepayers ... to prevent [Millstone] from retiring."

Vermont Department of Public Service Commissioner June Tierney said Christie's

question was based on "a false duality."

"There's more than one way to design a market to keep the lights on," she said. ISO-NE "needs those lights to be kept on with clean energy in a way that addresses climate change meaningfully."

ISO-NE CEO Gordon van Welie said markets are "never going to work very well" with inadequate infrastructure supporting them "or if policy objectives are not aligned." He said the constraints in the region are around gas pipelines and storage plus LNG imports.



ISO-NE CEO Gordon
van Welie | FERC

"We have to design the markets around those constraints, and we are in the position where certain energy providers are going to have an outsized influence on our reliability," van Welie said. "That's just where we ended up because of the choices we made over the last two decades."

In terms of policy objectives, van Welie said there is a "misalignment at the moment" between the RTO and the states but added that the markets were set up to achieve reliability. "They've done an excellent job of doing that, despite the fact that we had to work around some of these constraints."

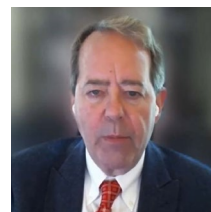
A Forward Clean Energy Market (FCEM), which is under consideration, offers some hope to relieve some of the tensions, but it will not ultimately solve the problem, he said. (See [ISO-NE: No Difference Between FCEM and ICCM — Yet.](#))

"Until the region figures out how it wants to socialize some of these costs for reliability that are outside of the market, we're going to stay stuck in that situation," van Welie said. "There's no market design that will solve the problem that Commissioner Dykes wants us to solve."

Potential Market Changes

In a discussion about the short-term options available and potential market changes that could better accommodate state policies, Mark Karl, ISO-NE vice president of market development and settlements, said that the capacity market design "needs to change."

"We recognize that without the successful combination of state resource procurement policies, over time the combination or the continuation of them will lead to a mismatch and potential double procurement of resources by

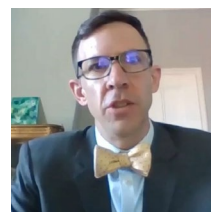


Mark Karl, ISO-NE |
FERC

the state and the market, which would create the inefficiencies and would tend to increase consumer costs," Karl said.

For the past few years, Karl said, the RTO has been working to accommodate state-procured resources within the minimum offer price rule (MOPR) framework. ISO-NE recently added a project to its Annual Work Plan to address the removal of the MOPR from the capacity market. Karl said that the Competitive Auctions with Sponsored Policy Resources (CASPR) mechanism was the RTO's "second-choice policy," but there is a "lack of regulatory support for it."

Philip Bartlett,



Philip Bartlett, Maine
Public Utilities Commission | FERC

chairman of the Maine Public Utilities Commission, said that CASPR "has not proven effective in terms of allowing state-supported resources into the market."

"The goal here is to define what it is we're trying to achieve clearly, and then develop the

tools that will do that at the least cost, while also supporting the renewable resources," Bartlett said.

Dan Dolan, president of the New England



Dan Dolan, New England
Power Generators Association | FERC

Power Generators Association, agrees that market reforms are "clearly" needed. However, it is also necessary to recognize the MOPR has been a part of the capacity market "for a very good reason."

"Economic price formation to provide market-based reliability is critical and cannot be lost sight of," Dolan said. "But I also recognize the discussion over the last several months and today about the future and potentially numbered days of MOPR."

Dolan said "out-of-market reliability support" like Connecticut's subsidies for Millstone should be avoided "as much as humanly possi-

FERC/Federal News



ble.” He said markets need to deliver reliability at a competitive price.

“How we do that is to evolve the electricity market in New England to manage three elements,” Dolan said. “First, it must integrate the state-sponsored resources to recognize their capacity value. Second, it should incorporate the underlying clean energy decarbonization policies into the market ... and third, it must ensure that the market is still providing resource adequacy and broader reliability services in a competitive manner.”

Abigail Krich, president of Boreas Renewables, said if reliability is a concern, “better defining our reliability needs and products should be the issue of top priority.” Krich expressed three key concerns that should be addressed to prevent the market from acting as a barrier to entry or limiting the counting of resources needed to meet state policy goals.

“First, the accreditation process in which different resources are qualified to provide a certain quantity of capacity does not currently strike a reasonable balance between the goals of recognizing the unique attributes of different technologies and treating all technologies comparably,” Krich said. “Second, the overlapping impact deliverability test effectively prevents new capacity resources in transmission constrained areas from competing with existing resources. Finally, energy-only solar generators that do not participate in the [Forward Capacity Market] are neither counted toward metering nor reducing the installed capacity requirement. They are simply ignored.”

Panelists Warn of Long-term Transition Woes

The last panel of the day found strong support for centralized clean energy procurement mechanisms. But while participants stressed the urgent need for a path toward New England’s carbon-free future, they also emphasized the danger of mishandling the transition.

“The costs of getting things wrong here are significant. ... We want to make sure we get it right, and we design it in a way that is consistent with sound market design so that we’re not back at the commission a year later saying, ‘We have to patch it up ... [because] this didn’t work exactly how we thought it would,’” said

Christopher Geissler, principal economist for ISO-NE. “While we want to work as quickly as possible, I think our objective would be to do the work as well as possible, and if that takes a little bit longer, I think that’s a trade-off that ... would be necessary.”

The *FCEM* framework — which would competitively procure clean energy commitments that can complement other wholesale power market products — received the endorsement of several panelists. But others cautioned against seeing any one strategy as a cure-all. Geissler, for instance, noted several barriers to the FCEM working as desired, such as a lack of consensus on what exactly constitutes clean energy and the likelihood of rapidly growing complexity as more products are added to the mix.

Arnie Quinn, senior director of FERC-jurisdictional markets at Vistra, echoed this warning, emphasizing that participants must be sure of the need they are trying to fill before they move forward with a new market design.

“Too much focus on emissions is going to get us California and CAISO from last summer; too much focus on cost is going to get us Texas from last winter,” Quinn said, referring to the Western heat waves of 2020 and the winter storm of February 2021, respectively. “So, we really have to incorporate [all] communities’ goals into the wholesale market. We think a reasonable carbon pricing mechanism, or a well designed regional clean energy standard, are both steps in the right direction.”



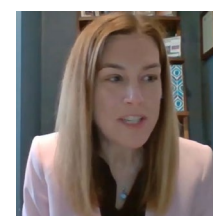
Jollette Westbrook, Environmental Defense Fund | FERC

also recognize that changes cannot be made overnight. Short-term measures will be needed to cover the transition period.

“In the near term, for example, ISOs should adopt capacity market reforms so that all

resources can compete on equal footing,” Westbrook said. She added that the long-term shift must incorporate “off-ramps” so that “corrections can be made early” if the new market is discovered to have unintended damages to disadvantaged populations.

The changing nature of the bulk power system and its generation mix are also complicating factors in adopting FCEM or other market designs, panelists warned, echoing multiple recent assessments from NERC and FERC. (See *FERC Summer Assessment Spotlights Western Drought Risks*.) As the electric grid continues its transition away from conventional generation, market structures will need to accommodate the characteristics of the new resources coming online while still supporting consumer demands.



Michelle Gardner, NextEra | FERC

“Our market today is based on summer peaking, and so we may need more dynamic purchases to support the changing resource mix across the season, shifting demands across the day, and new technologies,” said Michelle Gardner, senior director of regulatory affairs at NextEra Energy. Moreover, “as the states look to centrally procure clean energy, we are going to want those megawatts to count toward resource adequacy ... and as we all know, intermittent [generation resources] have very different profiles, depending on the season.” ■



CAISO/West News

CAISO Summer Measures Get FERC Approval

By Robert Mullin

FERC last week approved a set of CAISO tariff revisions intended to prevent the kind of supply shortages that triggered rolling blackouts in California last summer during an extended Western heat wave ([ER21-1536](#)).

The changes, the product of an expedited effort to head off shortages this summer, originate from the root cause analysis performed by CAISO, the California Public Utilities Commission and the California Energy Commission last fall to determine what contributed to the state's first rolling blackouts since the Western energy crisis of 2000/01. (See [CPUC, CAISO Take Major Steps for Summer Reliability](#).)

The joint report identified a number of causes, including the extreme weather, outmoded resource adequacy planning, transmission constraints and wholesale market design issues. (See [CAISO Says Constrained Tx Contributed to Blackouts](#).)

Among the market changes approved by FERC on May 25 was CAISO's proposal to better incentivize incremental energy imports under tight system conditions by providing bid cost make-whole payments to resources with hourly block intertie schedules issued through the ISO's hour-ahead scheduling process.

Under existing rules, CAISO's hour-ahead scheduling process produces binding hourly block energy schedules for all imports and exports, but those schedules are settled at prices set in the ISO's 15-minute market, a practice it established in order to reduce real-time energy imbalance offset charges. CAISO additionally adopted a rule making hourly block schedules ineligible for bid cost recovery in order to encourage economic bids at the interties, a practice it now says may disincentivize suppliers from offering incremental energy into the real-time market.

"CAISO explains that, during stressed grid conditions, the risk of receiving a payment less than bid price can increase, in part, because CAISO may take out-of-market actions before the 15-minute market that result in 15-minute prices clearing at amounts below an hour-ahead intertie block bid price," FERC noted. "As a result, suppliers in the hour-ahead scheduling process may face a charge as opposed to a payment to deliver needed imports."

To remedy the problem, CAISO crafted a rule that would guarantee suppliers at the inter-

ties receive at least their bid price under tight system conditions. The ISO's Department of Market Monitoring supported the revision. Pacific Gas and Electric offered qualified support, asking the commission to require ongoing monitoring and an after-the-fact cost-benefit analysis of the use of the make-whole payment by CAISO and the DMM to prevent potential gaming of the market.

In approving the rule, FERC said it found CAISO "has provided adequate specification of the circumstances under which it may suspend these make whole payments." It also rejected PG&E's request for ongoing monitoring, saying the new rule is unlikely to create a significant volume of uplift payments because it will be applied for very limited periods, and noting that CAISO and the DMM already perform monitoring of market results.

Other tariff changes approved include:

- the extension of CAISO's hourly block and 15-minute bidding options to reliability demand response resources (RDRRs). The change will allow scheduling coordinators to specify whether an RDRR can be dispatched in the real-time market in hourly, 15- or five-minute intervals based on its operational and technical constraints. The ISO said its current rules don't recognize the specific characteristics of RDRRs, which are often large load resources that can't respond to five-minute dispatch orders. As the ISO learned during last summer's heat wave, that can lead to price suppression in the five-minute market when the market process assumes those loads will be dropping off.
- use of net load uncertainty in the capacity test within the Western Energy Imbalance Market's resource sufficiency evaluation (RSE) used to validate each EIM entity's balancing authority area has sufficient capacity to meet its load and export obligations prior to a market interval. The net load uncertainty requirement "would account for the net load forecast error between the 15-minute and five-minute real-time market dispatch, adjusted for the EIM diversity benefit," FERC noted. CAISO had noted that its own BAA had passed the RSE's capacity test amid last summer's emergencies, indicating a shortcoming with the test. Inclusion of net load uncertainty should help prevent a BAA leaning too heavily on the EIM to meet its net load needs.
- a requirement that an EIM entity use an



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automated market feature that updates its "mirror resource" schedule when the market awards an import at a CAISO intertie scheduling point sourced from the entity's BAA. The ISO noted that entities currently have the option of either updating automatically or manually, but that the manual option increases the likelihood for error, especially under stressed conditions.

- pricing of all operating reserves at the applicable energy bid cap when those resources are dispatched during emergency conditions.

Interconnection Changes

The commission also approved two changes to CAISO's generator interconnection process to make more capacity available this summer.

The first removes the cap on the ISO's behind-the-meter expansion process, which currently allows interconnection customers to add generating capacity without increasing the interconnection service capacity originally studied at a site up to the lesser of 125% of the existing capacity or 100 MW.

The second will allow CAISO to temporarily award interim deliverability to independent study interconnection customers who reach commercial operation before the ISO conducts its next deliverability assessment to determine the capacity of projects in the queue.

Interconnection customers are currently required to participate in the market as "energy only" resources until CAISO is able to conduct its next cluster deliverability assessment. The ISO says customers typically must wait a year before that assessment, during which time they are excluded from providing resource adequacy capacity even if surplus transmission deliverability is available.

Under the new rule, any customer awarded interim deliverability will retain that status only until it either achieves full commercial operation or CAISO completes the next scheduled deliverability assessment and the customer completes delivery network upgrades. ■

CAISO/West News

Wash. PUD, NuScale Sign MOU to Explore Use of Small Reactors

By John Stang

An Oregon designer of small modular reactors has linked up with a venture to build four small reactors at the Hanford Nuclear Reservation in Washington.

NuScale Power of Portland, Ore., on Wednesday signed a memorandum of understanding with the Grant County Public Utility District to see if its small modular reactor (SMR) design can be used in the potentially first Washington reactor complex to go online since 1984.

Grant County PUD is part of a joint venture with Energy Northwest of Richland, Wash., and X-energy of Greenbelt, Md., to build four 80-MW modular reactors at Hanford by 2027. (See *Small Nukes Proposed for Wash. Hanford Site.*)

SMRs are prefabricated facilities with parts manufactured in one location, then transported to the reactor site for final assembly. A modular segment would consist of a mini reactor of 50 to 300 MW. The design allows for extra modules to be added as needed. Southeast Washington's Tri-Cities area, which includes Richland, hopes to become a prefabrication site for small modular reactors.

Under the venture, Energy Northwest, which operates the 1,150-MW nuclear-power Columbia Generating Station, would provide a partially built reactor site abandoned in the early 1980s and assume operations of the facility. X-energy is also a reactor design firm.

NuScale's SMR design has passed a technical review by the Nuclear Regulatory Commission, making its model the farthest along in the nation in obtaining NRC approval. (See *NRC*

OKs NuScale's Small Modular Reactor Design.)

Under the new MOU, NuScale and Grant County PUD would work together to perform the PUD's due diligence in deciding by the end of this year on whether to stick with the venture. The PUD is a potential customer for the reactor complex.

"As interest in our small modular reactors grows, we welcome this opportunity to emphasize how NuScale's safer and smarter technology can be the reliable and affordable clean energy solution that communities like Grant County and others across America need," NuScale Power CEO John Hopkins said in a press release.

In the same release, Grant County PUD CEO Kevin Nordt said: "NuScale's dedication to innovation and safety fit well with Grant PUD's values. We are excited to work towards making nuclear power a key part of a carbon-free future in the Pacific Northwest."

NuScale has a project already in place with the Utah Associated Municipal Power Systems, a coalition of more than 30 utilities in Idaho, Utah and New Mexico. Two of those utilities have dropped out of that effort in the past year because project costs have increased from \$3 billion to \$6 billion. The project calls for 12 60-MW modules to be built by 2030 at the U.S. Department of Energy's Idaho National Laboratory.

A second project in the works at Hanford might go online in 2027. It would consist of a 350-MW Sodium reactor, a sodium-cooled fast reactor potentially built on the site of another partially built reactor site owned by En-



Rep. Dan Newhouse (R-Wash.) looks on as Energy Northwest CEO Brad Sawatzke, X-energy CEO Clay Sell and Grant PUD CEO Kevin Nordt sign an agreement April 1 to create a partnership to evaluate development of an advanced nuclear reactor in Washington. | *Energy Northwest*

ergy Northwest. This would be a joint venture between Energy Northwest and TerraPower, a Bellevue, Wash., reactor design developer founded by Bill Gates. Energy Northwest said it is in talks with the company about the project, but TerraPower said it has not yet settled on a site and is considering several locations.

Both projects are near Energy Northwest's Columbia Generating Station, the only commercial reactor operating in the Pacific Northwest.

Energy Northwest was once called the Washington Public Power Supply System. WPPSS tried to build five reactors in the 1960s and 1970s — three at Hanford and two in Satsop, Wash. — but only Reactor No. 2 (now the Columbia Generating Station) was finished. The others were never completed because cost overruns and massive delays led to WPPSS in 1982 suffering the biggest bond default in Wall Street history up to that point. ■

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ERCOT News



CPS Energy Wins Round 1 vs. ERCOT

San Antonio Utility Keeps Lawsuit in Hometown Court

By Tom Kleckner

CPS Energy is celebrating a pair of victories in its battle with ERCOT over the nearly \$50 billion in market transactions during the February winter storm.

A Bexar County district court on May 21 *agreed* with the San Antonio municipal utility that it has the legal right to sue ERCOT over the grid operator's alleged "serious violations of Texas law, Texas statutes, contractual obligations and the Texas State Constitution." ERCOT claimed sovereign immunity in asking the court to dismiss the case and allow the proceedings to take place before the Texas Public Utility Commission.

The same court on May 21 also *rejected* ERCOT's request to change the proceeding's venue to Travis County, where the grid operator is headquartered. Instead, the case will continue to be litigated in Bexar County, where San Antonio is located ([2021CI04574](#)).

Judge Solomon Casseb issued his decisions in two single-page orders after hearing oral arguments from both parties.

"Tuesday's ruling underscores the strength of CPS Energy's case against ERCOT, and I look forward to the people of San Antonio having an opportunity to hold ERCOT accountable for its errors during and after the storm," San Antonio

Mayor Ron Nirenberg said in a *statement* issued by CPS.

"What ERCOT did was wrong, and it continues to refuse to correct its own acknowledged errors, including roughly \$16 billion in illegitimate charges," CPS CEO Paula Gold-Williams said. "CPS Energy looks forward to continuing to fight for our Greater San Antonio customers and Texans across the state."

ERCOT has claimed sovereign immunity as the lawsuits have piled up following the storm, noting it is funded by generators' transaction fees. The Texas Supreme Court in March declined to rule on an appellate ruling granting ERCOT immunity from lawsuits. (See [Texas Supremes Sidestep Ruling on ERCOT Lawsuit Shield](#).)

The grid operator said the appeals court "clearly demonstrated" its sovereign immunity and said it expects the Texas high court to "ultimately ... confirm this."

"ERCOT is neither concerned nor surprised by the recent Bexar County ruling," spokesperson Leslie Sopko said. "Lawsuits like this only increase costs, which are ultimately passed on to all Texas end-use customers, including CPS Energy's own customers."

CPS in April obtained a *temporary restraining order* that prevents ERCOT from "taking posted collateral to cover the charges that other market



CPS Energy CEO Paula Gold-Williams | © RTO Insider LLC

participants have not paid." (See "CPS Energy Gains Restraining Order," [Regulators, ERCOT Stakeholders Meet for First Time](#).)

"A city-owned utility cannot be asked to unlawfully extend its credit to help settle the debts of other entities, especially in cases where there is no chance of being repaid," CPS said.

CPS is the nation's largest public utility, providing service to more than 884,000 electric and 366,000 natural gas customers.

It is also involved in 17 lawsuits with gas suppliers over \$700 million in bills. The utility on Wednesday issued another *statement* from Gold-Williams accusing Enterprise Products Partners of "predatory price gouging" by inflating its natural gas prices by as much as 12,000% during the storm. She said CPS has already paid Enterprise \$36.5 million, but the gas supplier is suing to collect nearly \$100 million more.

"Enterprise held these exorbitant prices in place knowing full well that public utilities, such as CPS Energy, had no choice but to continue to buy," Gold-Williams said. "CPS Energy's legal positions are based on longstanding legal doctrines, deeply rooted in Texas law: Price gouging during a declared disaster is a violation of public policy, and the exorbitant prices charged by Enterprise are unenforceable because they are unconscionable."

"We at CPS Energy will not pass the higher, unlawful part of the charges to our customers only to further fatten Enterprise Products' bottom line." ■



A CPS Energy crew works to restore power following the February winter storm. | CPS Energy

ERCOT News



Texas Legislative Response to Winter Storm Leaves Some Doubting

Continued from page 1

would require weatherization of power plants and some critical gas infrastructure, improve oversight of the electric industry's supply chain, and create a statewide emergency alert system to better alert Texans to potential power outages.

The 87th Texas Legislature expired at midnight Sunday. Special sessions devoted to more controversial political issues are expected later this year.



Rep. Chris Paddie |
Texas House

Rep. Chris Paddie (R), who carried SB3 in the House of Representatives, said the bill targets “the systematic failures from wellhead to light switch” in addressing legislators’ three main priorities: oversight and accountability, communication

failures, and weatherization.

“I don’t think it is acceptable for us to leave this session not having passed this bill and these reforms,” Paddie said during the debate.

While SB3 would require weatherization of power plant facilities, it would only ask the same of gas facilities identified as critical infrastructure by a supply chain mapping process. The Texas Railroad Commission (RRC), which critics say does more to *protect the oil and natural gas industry* than provide oversight, would be responsible with determining what upgrades to make. The bill does add penalties that range from \$5,000 to \$1 million for violations of the standards.

Several energy experts criticized the legislation as it unfolded, saying it ignored the fact that gas generation accounted for the bulk of outages that plunged the ERCOT grid into four days of blackouts. (See “Updated Storm Outage Report Minimizes Wind Energy’s Contribution,” *ERCOT Technical Advisory Committee Briefs: April 28, 2021*.)

“SB3 does an OK job of requiring regulatory bodies to develop weatherization standards and have rules and penalties in place. Those are good things,” Beth Garza, a senior fellow with R Street Institute and former director of ERCOT’s Independent Market Monitor, said during a media briefing last month. “What hasn’t been addressed is any kind of energy efficiency or demand-side actions to improve the

usage, the lower and controlled requirements for electricity.”

“If there’s a take-home message for legislators to consider, are we requiring the gas plants, which were the biggest part of the outages, to winterize?” asked Daniel Cohan, an energy researcher at Rice University. “There’s been more to winterize the power plant side than the gas side. We’ll just have more plants that don’t have fuel to burn. It’s hard to see how this provides the full coverage of winterization that we need.”

At the same time, the House removed Senate language that would have charged renewable resources to provide ancillary services, currently covered by the market. Similar language targeting renewables for their intermittency is also not in the House version of SB3.



Jeff Clark, Advanced
Power Alliance |
Advanced Power Alliance

That pleased Advanced Power Alliance President Jeff Clark, who said this has been the most difficult legislative session he has lobbied. He complimented the House and Senate for working together to address February’s failures.

“[Rep.] Paddie and the House have thoughtfully worked with [the Senate] to find common ground on many issues, balancing many competing interests,” Clark said in an email to *RTO Insider*. “We hope that they will continue to consider the consumers, investors, communities and power generators who raised their voices of collective concern and not move backward on the improvements made to the bill.”

During a debate May 23, Paddie said the February disaster “opened the eyes of a lot of folks” to the interdependency between the electric and gas industries. “I think everyone can admit there were failures, in communication most importantly,” he said.

Garza referred to the dependency between the two industries as a “dysfunctional relationship.”

“One of the ways [SB3] can address that is by forcing those two industries to work together on a couple or three things,” she said. “Any product that comes out of forcing those two industries to work together and produce something is a step in the right direction.”

The RRC and PUC, which oversees ERCOT, water utilities and telecommunications, will be responsible under SB3 to work together in mapping critical infrastructure and helping develop an alert system that would be coordinated by the Texas Department of Public Safety.

No Electricity Market Changes — Yet

Under questioning from fellow representatives, Paddie said his committee purposefully avoided addressing the electric market’s structural issues to focus on oversight and accountability, communication and weatherization. He pointed out that the bill includes a section that would create a hand-picked select committee to review the various improvements being recommended and to deliver a comprehensive report by September 2022.

Any major changes to the ERCOT energy-only market would be the first since the legislature deregulated the electric industry in 1999 in an effort to reduce prices.

“If we’re going to make a decision in this body, I want to make sure we have all the information that is accurate,” Paddie said. “I really wanted us to push any discussion of market tweaks to a market that’s served us pretty well for 20-plus years, but that probably deserves a little bit of a look. We probably need to pop the hood and take a look at some potential tweaks ... [but] we should proceed very deliberately and fully understand the full impact of those types of changes.”

SB3 would allow for a State Energy Plan Advisory Committee composed of 12 members selected equally by the governor, lieutenant governor and House speaker. The committee members would be asked to evaluate the market’s structure and pricing mechanisms, including the ancillary services market and emergency response services, and provide recommendations to remove barriers that prevent “sound economic decisions” and improve the grid’s reliability, stability and affordability.

Charlie Hemmeline, the Texas Solar Power Association’s executive director, agreed that any changes to the market are “complicated” and should be done in a “thorough, consolidated” way.

“Let’s take some time to look at some new things we need to add,” Hemmeline said. “It’s been 20 years since deregulation. What else do we need to do to reform this market, to be inclusive and create new products for new needs? Those are all good things. Let’s just

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make sure we are doing that in a thoughtful manner.”

An amendment to study the feasibility of ensuring significant reserves are available to the grid for emergencies only failed. Berkshire Hathaway Energy and Starwood Energy Group Global have both proposed building about 10 GW of natural gas facilities to provide backup power, funded by decades of monthly charges to customers. (See [Berkshire Hathaway Offers Texas Emergency Power Supply](#).)

ERCOT Overhaul

The Legislature also agreed to [SB2154](#), which would increase the PUC from three commissioners to five. A previous requirement that commissioners be “well informed and qualified in the field of public utilities and utility regulation” would only apply to two of the five commissioners.

Rep. Drew Darby (R), whose district consists of nine West Texas counties, failed in his attempt to amend the bill so that at least one commis-

sioner hails from a county with 150,000 or less residents.

“If we don’t want them to be competent, at least let one of them come from rural Texas,” Darby said during debate last month.

Another [bill](#) securitizes \$2.5 billion worth of bonds to help the ERCOT market recover some of its losses from February. The market was still *short nearly \$3 billion* as of May 21, with bankrupt Brazos Electric Power Cooperative owing \$1.88 billion.

A special session is already being scheduled in the fall to handle redistricting and allocating \$16 billion in federal COVID-19 response funds. Legislation that doesn’t pass this biennial session could be added to the fall agenda.

PUC Sets Weekly Schedule for June

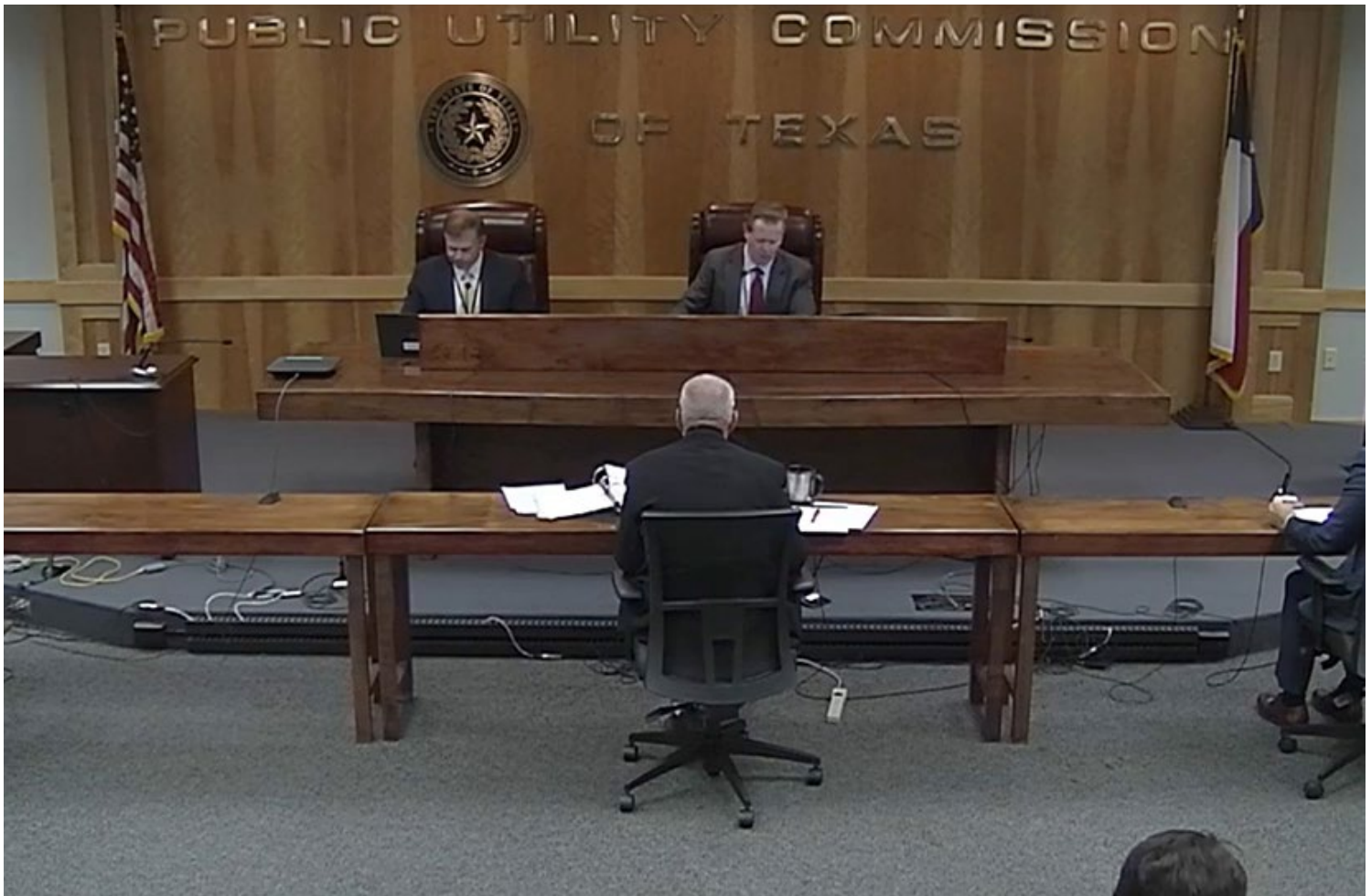
In anticipation of the pending legislation, the PUC has set up weekly workshops for this month to “get ahead” of the rulemakings and scheduling issues.

“It’s fair to say there’s a lot of homework coming our way,” Commissioner Will McAdams said during the agency’s May 21 open meeting.

McAdams proposed that the “informal” workshops begin this Thursday, giving himself and Chairman Peter Lake, the only other current commissioner, an opportunity to discuss the February blackouts with PUC and ERCOT staff. The workshops have yet to be set on the commission’s [calendar](#).

The PUC has set aside its June 11 open meeting for an ERCOT update on its plans to meet summer demand, projected to peak at a record 77.1 GW. (See [ERCOT Resource Adequacy Hard Sell After Winter Storm](#).)

The commission has a number of standing agenda items related to the winter storm and the coronavirus pandemic, including a review of wholesale-indexed retail products, gas-electric coordination and reviews of a weatherization standards rulemaking, scarcity-pricing mechanism and critical load standards and processes. ■



Texas PUC Commissioners Will McAdams (left) and Peter Lake discuss their plans in response to forthcoming legislation. | PUCT

ERCOT News



Six Years in the Making: LP&L Migrates Load to ERCOT

Successful Transfer of 70% of Load Sets Stage for Remaining 30%

By Tom Kleckner

ERCOT welcomed 70% of Lubbock Power & Light's load to its system over the weekend, a culmination of six years of engineering work and regulatory approvals.

The Texas grid operator said the transition was completed without issues at 12:22 p.m. Sunday. Staff worked closely with LP&L and Oncor personnel to transfer about 470 MW of load from SPP, the largest single transfer of customers in its history.

ERCOT *promised* a smooth transition and minimal effects for customers, outside of short outages when the actual switch occurred.

"This is a historic day and weekend for our entire community," David McCalla, LP&L's executive director, said in a *statement*. "It's been a massive undertaking," he added, thanking employees, city staff, local authorities and "everyone that worked together to ensure a safe and smooth transition."

The move gives LP&L access to ERCOT's competitive market and its 1,800 participants and opens the door to retail competition, goals of the effort that began in 2015. (See *Integrated*

System to Join SPP Market Oct. 1.)

The utility said the move eliminates the need to spend up to \$700 million on a power plant and cuts wholesale power costs by eliminating fixed capacity charges. It also pointed out that the move avoids primary regulation by the "federal government" (FERC) and brings in oversight from Texas' Public Utility Commission and legislature.

The PUC approved the transition in 2018. (See *Texas PUC OKs Sempra-Oncor Deal, LP&L Transfer.*)

The other 30% of LP&L's load could follow by the summer of 2023. The City Council and Utility Board last week *approved early termination* of LP&L's partial requirements contract with Southwestern Public Service that would have cost the utility more than \$17 million a year through 2044.

LP&L agreed to pay \$77.5 million upfront to escape the contract; it will recoup that payment through 30-year bonds at about \$4 million/year. The contract, signed in 2010 to provide 30% of the city's electric needs for 25 years beginning in 2019, will now end in May 2023.

Lubbock Mayor Dan Pope said in a statement

that the agreement's approval allows the city to "fully pursue its stated goal of migrating 100% of customers to ERCOT" and to become the state's first municipal utility in Texas to voluntarily opt-in to the retail competitive market since its creation in 1999.

LP&L customers have already seen six rate decreases in the past 36 months. Lubbock's Electric Utility Board in April voted to *lower* the rates' power cost recovery factor portion for the summer. When Standard & Poor's in May *raised* LP&L's bond rating to A+, in line with its ratings by Moody's and Fitch, it cited the utility's financial position as among the reasons for the upgrade.

LP&L crews connected 17 substations to ERCOT with an average outage time of 16.6 minutes. Oncor built multiple switching stations and several new 345-kV and 115-kV transmission lines that connect Lubbock to the ERCOT system and also increase available transmission capacity for generation resources in the Panhandle.

Three LP&L-owned gas-fired resources, totaling 120 MW, are now incorporated into ERCOT and are already included in its capacity, demand and reserves report. ■



Most of Lubbock's load is now part of the ERCOT system. | City of Lubbock

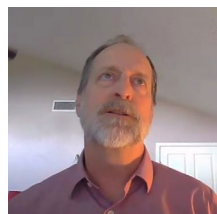
ERCOT News



Texas RE Gives Sunny Summer Outlook

By Tom Kleckner

The Texas Reliability Entity's director of reliability services said Thursday that wind and solar energy will be crucial if the state is to survive another brutal summer.



Texas RE's Mark Henry lays out the summer outlook in his "Talk with Texas RE" presentation. | Texas RE

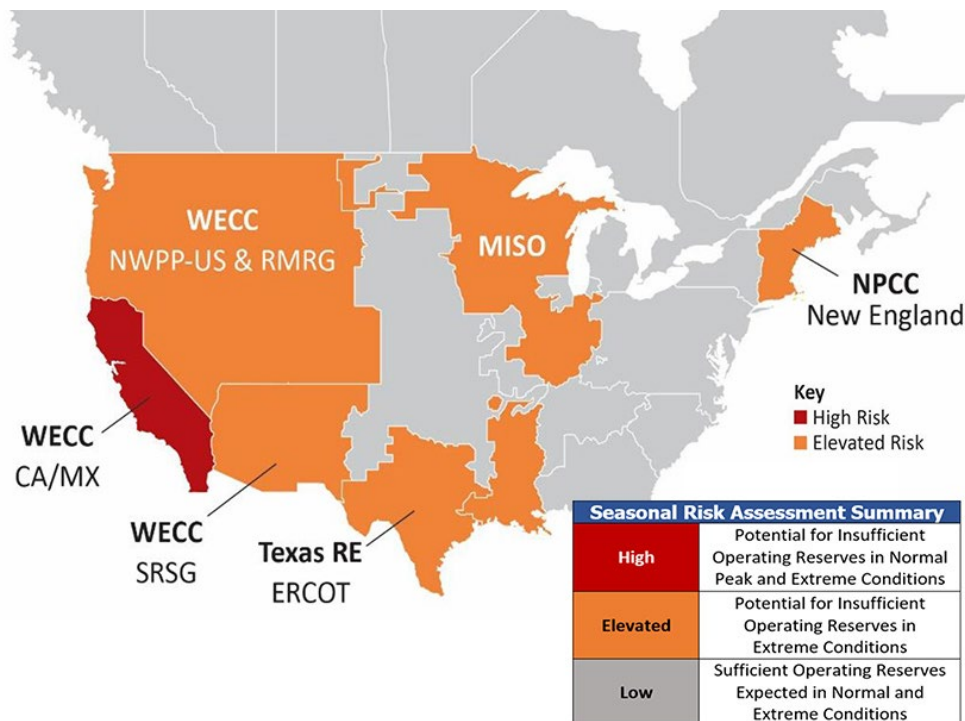
Mark Henry appeared buoyed by ERCOT's 15.7% reserve margin, nearly double its 8.6% margin just two years ago, as he discussed the interconnection's summer outlook with a "Talk with Texas RE" virtual audience.

"We look very good this summer, compared to the last two years, on

paper. Practice has shown the paper can be realized in what we achieve," Henry said, before interjecting a note of caution. "We can't serve the expected peak without wind and solar contributing to that."

He pointed out that conventional resources will account for almost 72 GW of capacity this summer, with wind, solar and battery resources being instrumental in covering the afternoon peaks. The hour ending at 5 p.m. remains ERCOT's highest-risk hour for unserved energy, Henry said, with the likelihood of unserved energy being less than 0.2%.

In its 2021 Summer Reliability Assessment released Wednesday, NERC said Texas RE's ERCOT footprint faces an elevated risk because of the



NERC projects an elevated risk for ERCOT this summer. | Texas RE

potential for insufficient operating reserves during extreme conditions. (See [Summer Bringing 'Elevated Risk,' NERC Warns.](#))

"That's always a concern to us: Are we going to have enough generation to meet the peaks we'll have in July and August? It's always possible it might be a little hotter than we expect for a couple of days. After the events of the past year, there's growing awareness we need to be even more prepared for situations that are not in the normal realm."

ERCOT has projected it will have 86.9 GW of total resource capacity, enough to meet an expected peak demand of 77.1 GW this summer. That would be a new demand record, breaking the mark of 74.8 GW set in August 2019. (See [ERCOT Resource Adequacy Hard Sell After Winter Storm.](#))

Thunderstorms and torrential rains have drenched much of the state this spring, lending hope that temperatures this summer will not be as high as they have been in years past. As Henry said ERCOT's meteorologist told him, "Moisture on the ground tends to keep the temperatures down."

"We've got to have our wind and solar at some level, and hopefully we'll find they perform exceedingly well this summer. I think this a

summer we can get through without too much difficulty," Henry said.

ERCOT Tests Emergency Notification System

ERCOT tested its automated emergency notification system Wednesday evening as part of its "aggressive" pre-summer preparation activities.

Test messages were sent through the grid operator's various communications channels, including its [website](#) and mobile app, [Twitter](#), and email distribution lists. The test began at 7:05 p.m. and concluded at 7:25 p.m.

The grid operator said that during a potential grid event, it uses the automated notification system to send "timely communications" directly from the control room.

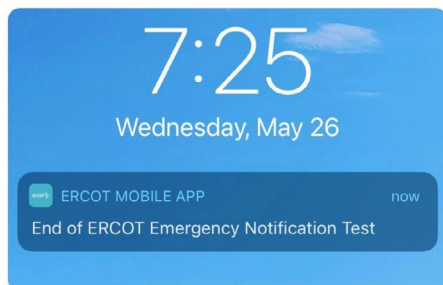
The first test message on Twitter drew mostly [snarky responses](#).

ERCOT was criticized for unclear communications in February that didn't prepare Texans for power outages that lasted for days. Lawmakers are working on legislation that would develop an alert system to be coordinated by the Texas Department of Public Safety. (See [Legislative Response to Winter Storm Leaves Some Doubting.](#))



Replying to @joshdr83

THIS CONCLUDES THE TEST OF THE ERCOT EMERGENCY NOTIFICATION SYSTEM. HAD THIS BEEN A REAL EMERGENCY, IT WOULD PROBABLY BE A LOT LESS NICE OUTSIDE!



ERCOT's test of its emergency notification system drew cynical tweets. | Joshua D. Rhodes, via Twitter

ERCOT News



ERCOT Technical Advisory Committee Briefs

Members Working on 124 Issues Stemming from Winter Storm

ERCOT stakeholders are waiting on final direction from state lawmakers and regulators as they tackle a list of more than 100 emergency conditions issues arising out of February's disastrous winter storm.

Just Energy's Eric Blakey, chairing last week's Technical Advisory Committee meeting in the absence of South Texas Electric Cooperative's Clif Lange, told members that "to the extent we can, we're moving forward."

"As we move forward, we'll start to get legislative direction," Blakey said Wednesday. "We'll begin working with the [Public Utility Commission] more directly on the projects they have ongoing to address some of these issues. Let's continue to work the process."

The list, first developed with input from then-CEO Bill Magness in March, now numbers 124 issues that have been parceled out to various stakeholder committees. (See "TAC Takes up Ideas for Solutions," [Texas PUC Won't Reprice \\$16B Error.](#))

The vast majority of the issues, denoted as "awaiting legislative action," or near- or long-term "stakeholder items," have not started, with many others waiting until the PUC designates them as projects.

Only two items are in progress: accelerating ongoing improvements to resource adequacy reports by modeling the risk of various emergency events' magnitudes; and updating the methodology used to determine the cost of new entry. The CONE is used to determine the systemwide offer cap, which has been reset to \$2,000/MWh for the summer after hitting its \$9,000/MWh limit during the February storm.

The Texas legislature adjourned Monday night until 2023. At least one special session is expected later this year.

Counterparties Face Tougher Entry Criteria

Stakeholders debated a measure that strengthens market entry qualifications for ERCOT counterparties and other entities before agreeing to table it and send it back to the Wholesale Market Subcommittee's Market Credit Working Group for further refinement. The TAC plans to take a second look at the language during its July meeting before presenting it to the Board of Directors in August.



An ice-over meter during February's winter storm | *Kerrville Public Utilities Board*

The nodal protocol revision request ([NPRR1073](#)) adds new criteria for qualified scheduling entities (QSEs), congestion revenue right account holders (CRRAHs) and other counterparties. It creates a new background check process as part of ERCOT's review of current and prospective counterparties; authorizes staff to review current and prospective counterparties to determine whether they pose an unreasonable credit risk; authorizes ERCOT to suspend a QSE or CRRAH if they pose an unreasonable credit risk; and authorizes staff to terminate a counterparty's registration if it is deemed an unreasonable credit risk that cannot be remedied.

ERCOT, Luminant and Shell Energy North America all filed late comments on the NPRR. ERCOT was supportive of the NPRR, saying the change would prohibit an entity from entering, returning to or participating in the market if it has a principal that was also a principal with a former market participant that still had a financial obligation to the grid operator. It noted that another proposed change (NPRR1067) creates a holistic background and credit check process and mitigates market exposure by bad actors by providing tools to assess counterparty creditworthiness.

Shell agreed with Luminant's comments that

NPRR1073 should focus on ensuring that market participants are responsible for their allocated default uplift and requiring that defaulted entities repay the default before any principals may return to the market. Resmi Surendran said care should be taken so that "good players [are not] at potential violation of the protocol as soon as the changes are approved" and asked for clarification on the measure's implementation.

Lower Colorado River Authority's John Dumas said the cooperative's credit staff were confused about some of NPRR1073's language and its potential conflict with securitization legislation being debated at the capitol.

"How will that new bill work with uplift rules and default rules currently in place?" he asked, agreeing that the Market Credit Working Group, with its "financial experts," is the best place to hammer out those issues. "We've got to get the language and the rules right."

The PUC's Rebecca Zerwas said staff were supportive of ERCOT's comments but still wanted to look at the language.

Urgent ESR Change Passes

TAC members approved a measure, granted urgent status to allow energy storage re-

ERCOT News



sources' (ESRs) participation to grid reliability this summer, over the objections of industrial consumers. CMC Steel Texas and Air Liquide voted against the change, which passed 26-2 with one abstention.

NPRR1075 allows ESRs to update their high sustained limit (HSL) and/or maximum power consumption (MPC) in real time to maintain sufficient energy to meet an ancillary service resource responsibility. The carveout for ESRs will expire when either real-time co-optimization goes online or a mitigated offer cap for ESRs is implemented.

CMC's Garret Kent said the NPRR poses important implications for ESRs that need to be addressed before the summer. ERCOT staff said they support the measure because of "various operational issues."

The committee unanimously approved the combination ballot, which included four NPRRs, an other binding document revision (OBDRR) and single changes to the load profiling (LPGRR) and planning guides (PGRR):

- **NPRR1062:** changes the metering requirement for premises connected at transmission voltage and/or with a peak demand greater than 700 kW/700 kVA from an interval data recorder (IDR) meter to one that also includes advanced meters. The change also eliminates the IDR meter requirement report.
- **NPRR1064:** conforms ERCOT's as-built systems protocol language with respect to the evaluation and reporting of chronic congestion. The revision also clarifies the grid operator's expectations and processes for the verification of modeling information for elements included in the chronic-congestion report.



ERCOT's Technical Advisory Committee is waiting on final legislation to come out of the State Capitol. | Texas House of Representatives

- **NPRR1071:** modifies the threshold for retail electric providers' (REPs) participation in the annual survey of aggregate customer counts from 95% to 98%; the timing requirement for REPs to provide information to ERCOT regarding demand response deployments from Oct. 15 to Oct. 31; and the posting date for the final report from Dec. 15 to Dec. 31.
- **NPRR1074:** changes the definition of "mp" in the credit default allocation calculations substituting "existing" for "non-defaulting."
- **LPGRR068:** adds two new PROFILETYPE-CODES for use on premises billed on a four-coincident peak (4-CP) where transmission and/or distribution service providers can support a 4-CP billing rate with an advanced metering system profile: BUSLRG will be for premises without distributed generation and

BUSLRGDG for those with DG. The existing BUSIDRRQ will remain an option for premises billed on a 4-CP tariff.

- **OBDRR029:** modifies the Demand Response Data Definitions and Technical Specifications OBDRR's Excel templates in Appendix B (NOIE Submission File Template) and Appendix C (REP Event File Template) to clarify that electric service identifier numbers are to be provided instead of ESI ID lists. Also combines error descriptions and suggested fixes into a single table.
- **PGRR088:** includes the financial security amount necessary to fund the interconnection facilities in the monthly generator interconnection status report. ■

— Tom Kleckner

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ISO-NE News

FERC Grants ISO-NE Extension on Order 2222 Compliance

By Jason York

FERC last week granted ISO-NE an extension on its Order 2222 compliance deadline, giving the RTO until Feb. 2, 2022 (RM18-9). The original deadline was July 19.

Order 2222, issued last September, directs RTOs and ISOs to open their markets to distributed energy resource aggregations. (See [FERC Opens RTO Markets to DER Aggregation](#).)

In its extension request, ISO-NE told the commission that Order 2222 compliance “requires substantial coordination.” An extension would ensure the RTO “has sufficient time to engage with relevant electric retail regulatory authorities, electric distribution companies, meter readers and other affected stakeholders,” it said, and its approach to metering and integration of demand response resources would benefit from further discussions with NEPOOL stakeholders. The extension also provides the RTO and NEPOOL time to review whether Order 2222-A, which FERC *issued* in

March to refine and clarify some requirements in the original order, impacts its compliance proposal. (See [FERC Limits State ‘Opt Out’ on DR](#).)

The Massachusetts Department of Public Utilities, Connecticut Public Utilities Regulatory Authority and Vermont Public Utility Commission supported ISO-NE’s compliance extension, including the ability to solicit more input from stakeholders. Advanced Energy Economy agreed with the RTO that several issues warrant further discussion and emphasized the importance of allowing stakeholders to provide feedback on ISO-NE’s proposal to ensure full compliance.

Christie Concurs, with Caveat

Commissioner Mark Christie concurred with granting an extension, but he reiterated that he would not have voted for Order 2222 if he were on the commission last September.

Christie said similar to the compliance extension requests filed by MISO, SPP and PJM, ISO-NE also illustrated “the daunting

complexities and certain increased costs to consumers” that he referenced in his dissent to Order 2222-A. Christie noted that NEPOOL has already held seven committee meetings on the order. (See [FERC OKs Delay on Order 2222 Compliance](#).)

“Since — at least at this point — the RTOs have no choice but to comply with these orders, I respectfully concur with the letter order granting ISO-NE’s request for extension of time to make its compliance filing,” Christie wrote. “I also hope that by granting the extension, ISO-NE will have more time to try to mitigate some of the potential for reliability problems.”

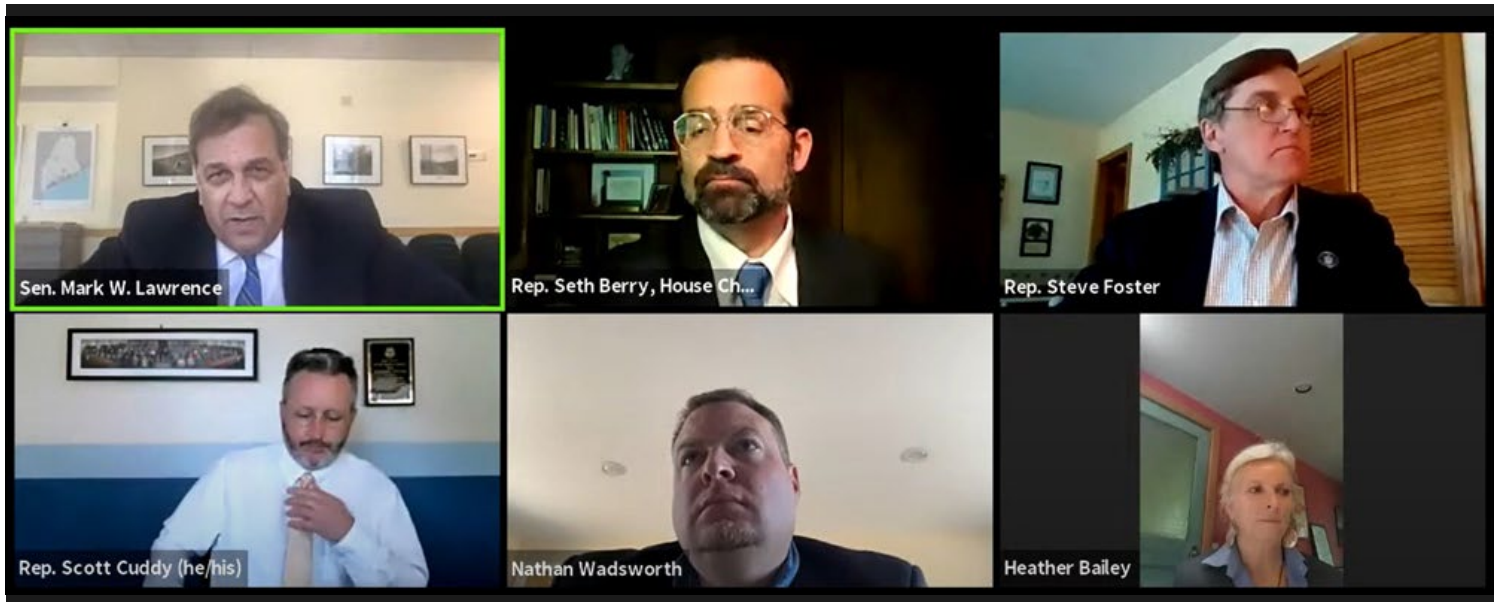
ISO-NE will seek votes on its Order 2222 compliance proposal and any potential amendments at the December meetings of the NEPOOL Markets, Reliability and Transmission committees. The RTO will then request a vote from the Participants Committee at its January 2022 meeting. (See “Discussing Order 2222 Compliance,” [NEPOOL Markets Committee Briefs: May 11, 2021](#).) ■



FERC headquarters | © RTO Insider LLC

ISO-NE News

Legislators Considering Bill to Replace Maine's IOUs



Maine's Committee on Energy, Utilities and Technology heard testimony last week on a bill that would replace the state's investor-owned utilities with a consumer-owned utility. | *Maine Legislature*

By *Jennifer Delony*

A bill before Maine legislators seeks to replace the state's two investor-owned utilities with one consumer-owned nonprofit, should regulators find the IOUs unfit.

"LD 1708 will let us control our own money and our own energy destiny, and will let us advance both fast and fairly toward our own clean energy and connectivity future," Rep. Seth Berry (D), sponsor of the bill, told the Committee on Energy, Utilities and Technology in a hearing on the bill last month.

The bill would require the Public Utilities Commission to direct the sale of Central Maine Power and Versant Power if by 2024 if it is found unfit based on customer satisfaction, reliability and rates. It would then create a consumer-owned utility called Pine Tree Power to purchase the IOUs' assets.

Maine law already allows the PUC to determine a utility's fitness to serve, but there are no standards for making that determination.

"This bill would set a definition and set a baseline of expectations of our utilities that we entrust with the privilege of a monopoly, that we allow to use our public rights of way and that we allow to use eminent domain against our own citizens," Berry said.

CMP is owned by Spain-based Iberdrola via Avangrid (NYSE: AGR), and Versant is owned

by the Canadian city of Calgary's utility, ENMAX.

If the bill passes, it will go before voters in November.

In testimony opposing the bill, Versant President John Flynn said the utility is working to change how it performs and is perceived in Maine.

"The idea that the government may force divestiture of Maine's two privately owned transmission and distribution utilities is perhaps the single largest variable in terms of disruption to" the state's climate progress, he said. "To achieve our climate and grid modernization objectives, we need everyone working together, and we have neither the time nor the money to waste on polarizing fights."

Joshua Dunlap, an attorney with Pierce Atwood, testified on behalf of CMP in opposition to the bill, saying that it is unconstitutional and would, therefore, "generate lengthy and complex litigation." The state, he added, would potentially be responsible for paying millions of dollars in legal fees from a constitutional challenge.

The PUC also sees the bill as risky, although it did not support or oppose it in testimony.

Potentially time-consuming litigation before the PUC and the courts could "frustrate the state's goals of grid modernization and bene-

ficial electrification," said Garrett Corbin, PUC legislative liaison.

The proposal for what amounts to a government takeover of the IOUs is significant and requires caution, according to the Governor's Energy Office (GEO). It raises "substantial and serious questions" that deserve more time to address than allowed during the current session, Director Dan Burgess said. While the GEO neither supports nor opposes the bill, it believes further study should be conducted on the income and property tax impacts of the proposal as well as issues of eminent domain and how Pine Tree would be governed.

Sen. Richard Bennett (R) co-sponsored the bill along with a bipartisan group of senators and representatives. The ownership model by foreign governments and corporations, Bennett said, "has been a disaster."

It "drains money from Maine while leaving us with the most outages, the longest outages, the worst customer service and among the highest rates in the country," he said.

The bill is not the first attempt by Maine lawmakers to create a consumer-owned utility to replace the state's IOUs. But Berry said LD 1708 improves on previous iterations based on input from the public, lawmakers and experts. It includes, among other things, a clear climate- and jobs-focused mission statement and strict regulatory oversight of the transition and the utility itself. ■

ISO-NE News

ISO-NE: Resources in Place to Meet Summer Demand

By Jason York

ISO-NE last week said it should have the resources necessary *this summer* to meet demand during average and above-average temperatures.

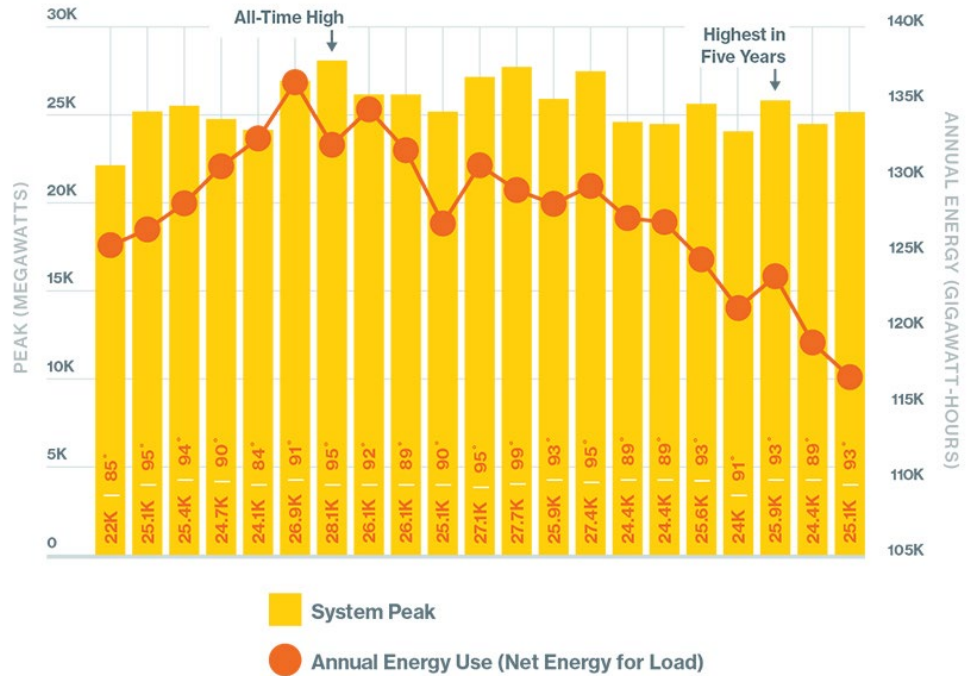
Under typical weather conditions, demand is expected to peak at 24,810 MW, according to the RTO's 50-50 forecast. An extended heat wave could push demand up to 26,711 MW in the 90-10 forecast.

ISO-NE's forecasts do not account for extreme conditions such as the Western heat waves and Texas winter storm during the past year. The RTO said it is working on ways to plan and prepare for those type of weather events.

"Events in other parts of the country have shown how quickly the unexpected can become reality," ISO-NE COO Vamsi Chadavada said. "Over the next several months, we'll work with the New England states and stakeholders in the energy industry to discuss the challenges these types of events pose to the region."

More than 31,000 MW of capacity are expected to be available, including generators using natural gas, nuclear, oil, coal, hydro, biomass and wind; demand response resources; imports from New York and Canada; and more than 2,600 MW of energy-efficiency measures.

The forecasts also include a reduction of more than 800 MW during the peak hour that can be expected from the region's more than 209,000



Peak demand vs. annual energy use on the ISO-NE grid | ISO-NE

behind-the-meter solar PV installations. New England has approximately 4,000 MW of solar PV installed, which produce their highest output in the early afternoon hours. The regional increase in solar power has pushed the peak hour of grid demand to later in the day, when production from solar PV systems is lower.

The RTO also *continues to monitor* the impact of the COVID-19 pandemic on demand. As

vaccination efforts have expanded during the last several months and New England states continue their reopening efforts, ISO-NE said demand is near normal, pre-pandemic levels after a slight decline.

Last summer's demand peaked at 25,121 MW on July 27. The all-time record occurred Aug. 2, 2006, when demand reached 28,130 MW after a prolonged heat wave. ■

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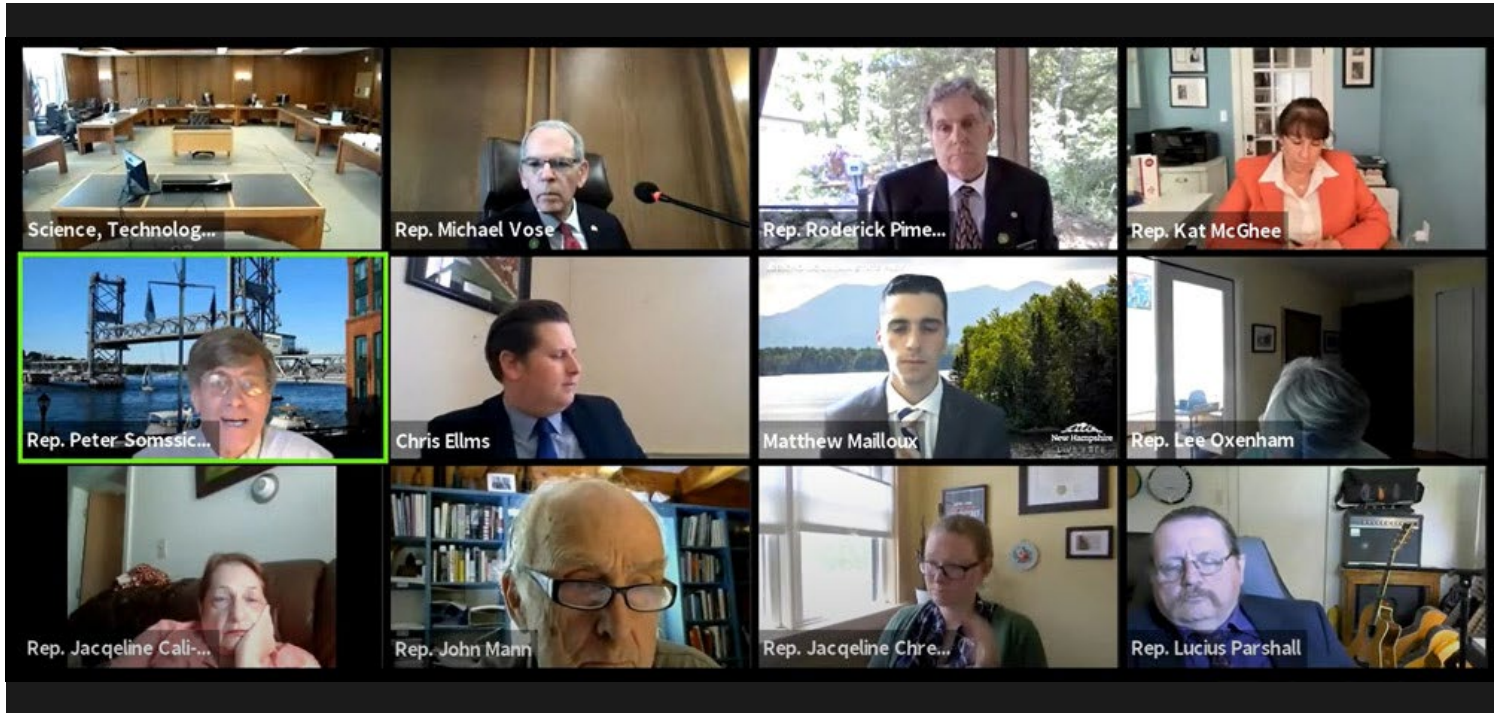
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ISO-NE News

NH Poised to Merge Utility Regulator into New Dept. of Energy

Office of Offshore Wind Will be Funded for First Time



The New Hampshire Committee on Science, Technology and Energy heard from the state's budget director last week on a proposal that would reorganize the Public Utilities Commission and create a Department of Energy. | *New Hampshire House of Representatives*

By Jennifer Delony

A reorganization of New Hampshire's government that would create a new Department of Energy is on the verge of being approved through the state's budget process.

The proposal, which is included in a budget trailer bill (*HB 2*), takes the energy functions of the Office of Strategic Initiatives (OSI) and regulatory functions of the Public Utilities Commission and restructures them under the DOE.

"We see this as an opportunity to reach better outcomes, whether it be for ratepayers or even just to give energy policies a singular home in the state of New Hampshire," State Budget Director Matthew Mailloux told the Science, Technology and Energy Committee in a presentation last month. The DOE would be the state's "single entity for energy policy decision making."

In April, the House of Representatives passed the trailer bill that contains the DOE proposal. And while the Senate Finance Committee is still working through the full budget, it approved the proposal in a 6-1 vote in mid-May.

The legislature is scheduled to adjourn June 30.

Four divisions would be formed under DOE, to include Administration, Policy and Programs, Enforcement, and Regulatory Support. OSI would be dissolved and reorganized partially under the Policy and Programs division. In addition, the existing electric division and gas and water division of the PUC would align under the Regulatory Support division. The commission itself would be administratively attached to DOE.

Restructuring the PUC, according to Mailloux, addresses a "perceived conflict of interest" in the dual roles of commission staff.

Under the current commission structure, staff can be a party to a docket to help build the evidentiary record and present evidence before the commission, while also advising the commission on how it should rule.

"What we're hoping to do by creating a new Department of Energy is establish a bright red line," Mailloux said. "Essentially, you either work as an adviser to the commissioners and help them rule on a given docket ... or you work for the department, represent the interests

of the state and make your case in the hearing room, but never behind closed doors."

In addition, the proposal adds accountability, he said, by transitioning all leadership positions that move to the DOE to a formal confirmation process with four-year terms. The commission chair will continue to have a six-year term.

The budget also funds for the first time an Office for Offshore Wind Industry Development, which would be located under the Policy and Programs division.

Sen. David Watters (D) sees the Finance Committee's approval as a win for the work currently underway by the state's Commission to Study Offshore Wind and Port Development.

"I'm sure it's going to take some time to get [the office] set up, [but the proposal] will pass with the budget when the budget passes," Watters told the offshore commission at its monthly meeting May 25.

The Office of Offshore Wind Industry Development would support the state's membership on the Bureau of Ocean Energy Management's Intergovernmental Renewable Energy Task Force and the offshore commission as it develops industry strategies. ■

ISO-NE News

ISO-NE, Stakeholders Mourn Death of Mike Henderson

Tributes poured in last week for Mike Henderson, who died May 22, little more than a year after retiring from ISO-NE.

Henderson retired in April 2020 after more than two decades with the RTO. As director of regional planning and coordination, Henderson led development of the Regional System Plan. He also served as chair of the Planning Advisory Committee for 12 years.

“He was a dedicated team member, an active member in many professional organizations such as IEEE, and advanced transmission planning in New England throughout his long-standing career,” Allison DiGrande, the RTO’s director of participant relations and services, said in a statement announcing his death. “Though his clever New York wit always garnered a laugh, Mike will perhaps be most remembered for the enthusiasm he displayed both for engineering and for helping mentor those in the field. He was always quick to give of his time and talent as colleagues and mentees pursued their engineering career goals.”

No cause of death was listed.

“Mike was the consummate professional – helpful, friendly and so very tolerant of my



Mike Henderson, ISO-NE | © RTO Insider LLC

‘rookie’ questions, especially early on in my New England experience,” said Brad Swalwell, director of markets and analytics for Tangent Energy Solutions.

“I called on Mike for help many times over the past two decades, and he was always gracious, helpful and at times very funny,” said the U.S.

Department of Energy’s David Meyer.

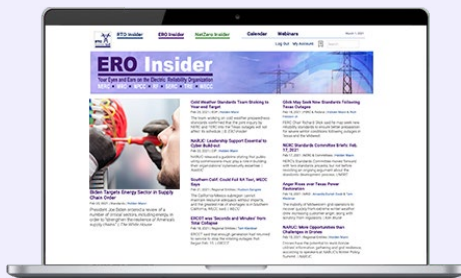
In lieu of memorial flowers and gifts, Henderson’s family asked that those wishing to honor his memory donate to the [IEEE PES Scholarship Plus Initiative](#). ■

– Rich Heidorn Jr.

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ISO-NE News

DOE Poised to Support Atlantic OSW Backbone Funding

By Jennifer Delony

With about 30 GW of offshore wind energy planned for the East Coast, the U.S. Department of Energy's Loan Programs Office (LPO) is anticipating the opportunity to support development of subsea transmission.

"There are a lot of folks that are looking at localized grids just for New Jersey, Massachusetts, Connecticut or Rhode Island, but there are many others who see a need for a backbone that goes from North Carolina to Massachusetts, particularly with polar vortices happening regularly," LPO Executive Director Jigar Shah said Wednesday at the New England Energy Conference and Exposition.

LPO can help improve resiliency by supporting financing to move power up and down the Eastern Seaboard, he said. There has been a lot of "hemming and hawing" around the need for a transmission backbone in the Atlantic, but market dynamics point to its benefits, he said.

"There's a tremendous amount of difficulty in finding where exactly to interconnect a lot of these offshore wind projects to New York and New Jersey directly, and having that Atlantic backbone actually provides a necessary buffer in case there are any failures in the proposed [transmission spur lines] being able to evacuate that power cost effectively to other places," Shah said.

LPO has \$4.5 billion in loan guarantees to fill in the gaps in commercial financing for renewable energy projects. Shah said transmission is just one of the areas where the office is seeing those gaps for offshore wind.

"The commercial banking sector is largely interested in a power purchase agreement for an offshore wind farm," he said. Investments in transmission, vessels and the supply chain do not play into that funding. LPO, however, can view offshore projects as inclusive of all those elements.

"Many of the largest developers have had to

put \$100 million into four or five different manufacturing companies to help spur the supply chain so that they can hit their timelines in 2024," he said.

U.S. offshore wind market players that have captured primary financing from European banks are now looking to LPO for more support. (See related story, [Lenders, Developers Bullish on East Coast OSW.](#))

"They need an additional billion dollars of capital to help with ships, the last mile of transmission, as well as some of these manufacturing hubs," Shah said.

Beyond the Money

Shah also said the OSW industry must do a better job of coordinating on labor and environmental justice to grow successfully.

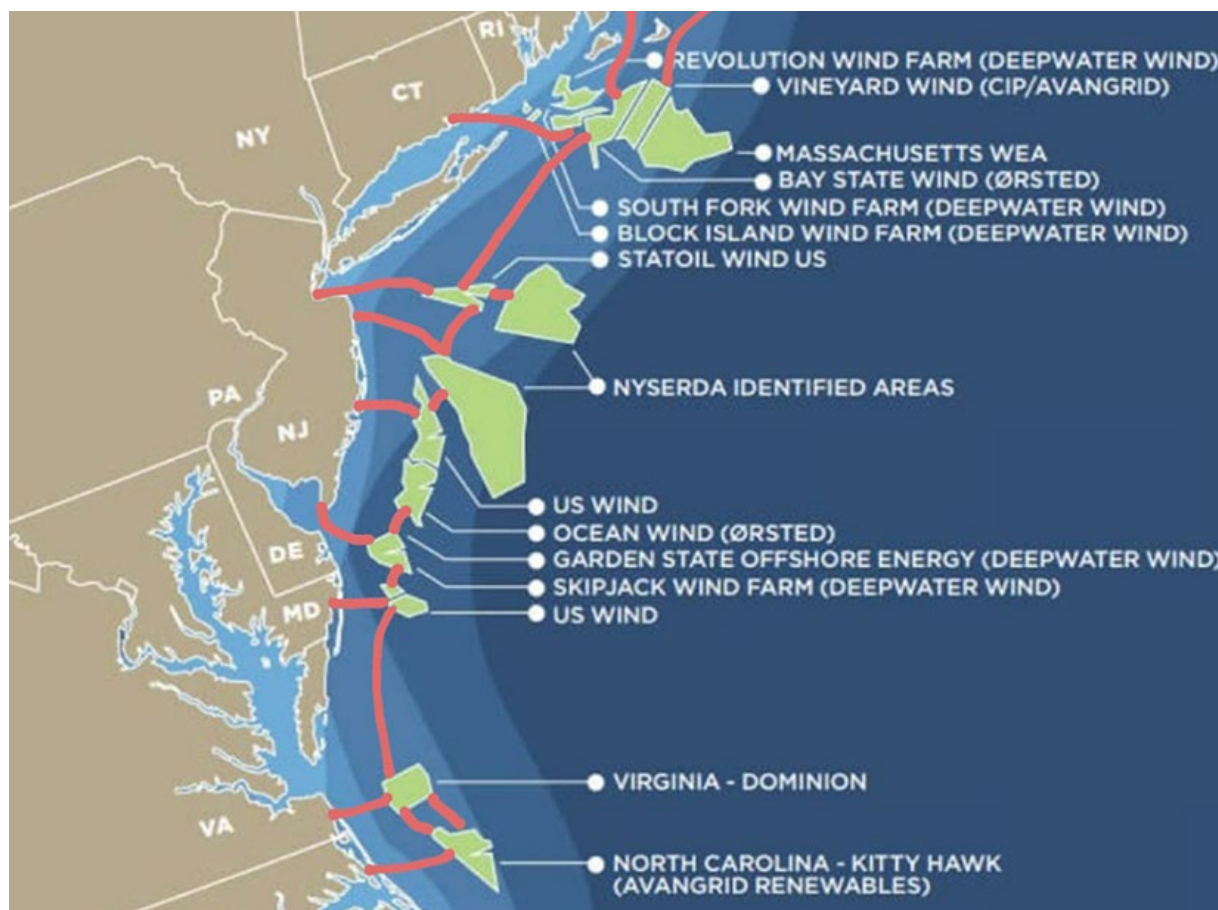
The industry, he said, has been focused on the unique challenges that come with building offshore wind projects without thinking about

broader societal conversations.

"The harsh reality of the situation is that if we're going to rebuild our entire country, which is what it's going to take to decarbonize ... by 2050, then that requires everyone having a seat at the table," he said. "That requires the offshore wind industry as well as other clean energy industries ... to have a broader understanding of what a \$40 billion industry needs."

Success will not come from lobbying only for what the offshore industry needs, he said.

It will require being "part of a broader ecosystem of support," he said. "Everyone's got to work hard to understand each other's needs and find areas of compromise so that we can all move forward more confidently together." ■



DOE Loan Programs Office Executive Director Jigar Shah said his office could help finance an offshore wind transmission backbone like the one shown here to connect projects from North Carolina to Massachusetts. | WIRES

ISO-NE News

NEECE Panel Cites Need for Tech Innovation, Public Policy

'Game Changer' for Conn.?

By Jason York

New England states' aggressive decarbonization goals need equally bold technology innovation and public policy to drive an equitable transition, speakers told the annual New England Energy Conference and Exposition (NEECE) last week.

Panelists discussed this confluence during the closing session of the conference, hosted by the Connecticut Power and Energy Society and the Northeast Energy and Commerce Association, "Theme of the Moment: How State Policy and New Technology Goes Green."

Katie Dykes, commissioner of Connecticut's Department of Energy and Environmental Protection (DEEP), said her state is "laser focused" on statutory economy-wide emissions reduction goals of 45% by 2030 and 80% by 2050, in addition to *pending legislation* mandating a carbon-free electric supply by 2040.

"We expect we're already going to be 91% carbon-free in our electric supply, based on our [offshore wind] contracts, by 2025," Dykes said.

According to Dykes, Connecticut is also on the cusp of "a real game-changer set of policies." A *bill* that would direct DEEP to create rules for implementing the Transportation and Climate Initiative Program (TCI-P) is under consideration in the General Assembly. TCI-P is a multistate cap-and-trade program to reduce greenhouse gas emissions from vehicles by 26% from 2022 to 2032.

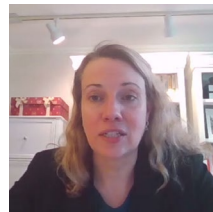
The bill also outlines plans for investing Connecticut's proceeds from the auction of emissions allowances. TCI-P projects to raise up to \$89 million starting in 2023, increasing



Katie Dykes, Connecticut DEEP | NEECE

to as much as \$117 million by 2032. The bill would direct at least 50% of this money to communities overburdened by air pollution or underserved by the transportation system. It also would establish an equity and environmental justice advisory board to counsel DEEP and the Department of Transportation on TCI-P to ensure equitable outcomes.

"We think [TCI-P] will be a significant investment in electric vehicle charging, rebates and other things that we can position in the marketplace to ensure equitable participation in a decarbonized and electrified transportation future," Dykes said.



Judith Judson, National Grid | NEECE

Judith Judson, vice president and head of U.S. strategy for National Grid (NYSE: NGG), said the utility aims to reduce economy-wide emissions by 50% below 1990 levels by 2030 and achieve net-zero emissions by 2050. The utility has

more than 20 million energy customers in New York, Rhode Island and Massachusetts.

"We've already picked the low-hanging fruit, including phasing out coal and investing in energy efficiency measures, so now we need to tackle the remaining emissions by transforming our energy systems at an unprecedented rate of change," Judson said.

National Grid's plan to reach net-zero emissions by 2050 includes demand response and energy efficiency and decarbonizing its gas network through renewable natural gas and hydrogen, she said. Judson added that large-scale renewables, distributed resources, battery storage, transportation electrification and heat pumps are integral parts of the future.



John Holtz, NRG Energy | NEECE

John Holtz, senior director of market development and regulatory affairs for NRG Energy (NYSE:NRG), said that in the 1990s not many people were thinking about renewable energy. Holtz said that competitive suppliers sold nearly 30 million MWh of renewable electricity in 2019.

"Renewable energy has been the most enduring impact of retail energy competition policy in the states," Holtz said. "Consumer demand and competitive markets helped drive investment in renewable energy and help bring us back environmental benefits. The retail industry has taught customers that they can buy energy products, not just from their local utility, but from other companies as well. That's a powerful combination for achieving our renewable energy and decarbonization goals."



Paul Hockenos | NEECE

Paul Hockenos, a Berlin-based journalist who focuses on renewable energy and climate change issues for several publications, said this is an "epic transformation of our society and economy."

"Everything's going to be changing, and in this massive restructuring that's going on, it's a vast mosaic with thousands of pieces," Hockenos said. "Everybody in our society, everybody in the economy has a role to play, small or large."

He said the *Fridays for Future* movement, started in 2018 by then 15-year-old Greta Thunberg of Sweden, illustrates that the threat of climate change goes beyond policymakers and "utterly changed the discourse in Europe."

"They've made more happen at the upper levels of government than all of the scientists banging on the doors of these offices week after week," Hockenos said.

Dykes said that in the "political sphere," states tend to work on carbon policies in consideration with environmental groups, technology companies and utilities, but bringing in other stakeholders can broaden the discussion, explicitly citing TCI-P for context.

"There are many communities and folks who get behind clean transportation, but their primary driver is not necessarily carbon," Dykes said. "It may be asthma, public health and air quality or wanting a safer transportation system or to boost their downtown development."

She said not every conversation has to start with greenhouse gas emissions "in your first sentence;" that gets more people "interested in understanding and advancing a climate policy." ■

MISO News

MISO Softens Capacity Accreditation Proposal

By Amanda Durish Cook

MISO has expanded its availability-based capacity accreditation proposal for generation resources by including hours that aren't so risky.

The grid operator originally proposed that a resource's accreditation would hinge solely on availability during "resource adequacy hours," or the year's top 5% of hours that MISO believes contain reliability risks. The plan will now include unremarkable hours in addition to RA hours, leading to more lenient accreditations.

MISO will use a resource's availability "across all hours with a two-tiered weighting structure between tight condition hours and non-tight hours." Risky hours will carry more weight than other hours. The grid operator will use the top 3% of tight hours and retain a rolling three-year period to define a resource's availability for accreditation.

"Resources that tend to offer their full availability and don't miss tight hours receive full credit," staff said.

During a special May 21 teleconference, Scott Wright, the RTO's executive director of market strategy and design, said staff will soon prepare numbers for the weighting.

The decision comes a month after MISO said it would wait until September to file with FERC a new accreditation and seasonal auction proposal. (See [MISO Places 4-month Hold on Seasonal Auction, Stricter Accreditation](#).)

Stakeholders denounced the RTO's first resource adequacy hours selection as too random to be helpful. Some have said it's too difficult to pin down when maximum generation events are likely to occur. Other stakeholders have said MISO has not provided enough data-driven results to justify a new accreditation process.

"This should reduce year-over-year volatility in accreditation values, and allow for better



WEC Energy Group's South Oak Creek coal plant, slated for retirement in 2024 | WEC Energy Group

planning," Kevin Vannoy, director of market design said of MISO's revisions.

He said staff would "continue to monitor this as the resource mix evolves."

Vannoy also said the accreditation will necessitate improvements in managing outages. "MISO's going to have to enhance our tools and processes for outage coordination," he said.

24-hour Exemption

An accreditation exemption provision has drawn the most attention from MISO stakeholders and its Independent Market Monitor.

The grid operator is providing a 24-hour exemption for offline resources during tight condition hours. If the offline resources rumble to life in a 24-hour window of the identified tight conditions, the inaction won't count against a resource's capacity accreditation.

IMM staffer Michael Chiasson said the 24-hour lead time seems too long. He said the grace period makes some resources "totally unavailable" for a perilous morning or midday peak.

Monitor David Patton said many emergencies occur with as little as 15 minutes' advance notice.

"You're proposing something here that doesn't seem to differentiate" flexible resources from inflexible resources, he said. "At the end of the day, the resources that help you make it through these emergencies are the flexible ones."

Patton said that while he recognized MISO was "trying to make stakeholders happy," it probably wasn't doing what is best for reliability.

"You need to prioritize where your principles are over just minimizing stakeholder concerns," he told MISO staff.

Customized Energy Solutions' Ted Kuhn argued that many emergency weather conditions are foreseen and take place over multiple days.

"The winter event and summer heat waves last for days," he said. "Planning for a two-hour event seems ill-advised."

MISO Executive Director of Market Operations Shawn McFarlane said the grid operator first needs to address the generation fleet's growing unplanned and forced outages.

"When we've needed generation and resources the most, they haven't been there as much

as we're forecasting," he said.

McFarlane acknowledged that MISO may need to eventually drop the 24-hour grace period.

Kuhn said using MISO's exemption, some generators could be spared from any performance measurement during resource-adequacy (RA) hours in their accreditation.

"I could easily see that happening," he said.

MISO market design adviser Dustin Grethen said "it is a risk" that generators could be exempted for all RA hours. "We'd probably need some protection in place there."

Grethen asked stakeholders for ideas on how MISO might allocate a limited number of RA hours exemptions.

Clean Grid Alliance's Natalie McIntire said she was unsure how the new accreditation will help on an "unexpectedly warm day ... that we don't see weeks in advance."

"It's a hot topic," Vannoy agreed, saying that outage planning will continue to evolve as more is learned about climate change and extreme weather.

Still 4 Seasons

MISO is still planning for four separate seasonal-capacity auctions. The proposal is premised on a four-month summer season, a two-month fall, and three months apiece for spring and winter. Staff said warmer Septembers are better categorized among summer load shapes.

The grid operator plans to use its current annual loss-of-load expectation analysis to set seasonal reserve requirements. Reliability targets will be rounded up to a minimum one-day-in-10-years standard, even if minimal or no risk is identified during shoulder seasons.

MISO will also conduct four separate analyses so transfer limits between its resource-adequacy zones vary with the seasons.

Patton said he doesn't agree with the proposed four-season accreditation. He said MISO should instead focus on separate winter and summer accreditations.

"I don't think you're going to have a lot of tight hours in spring and fall," he said.

Grethen said a seasonal division will account for special attributes, such as winter weatherization, and remove a year-round higher must-offer requirement to allow some units to take seasonal outages. ■

MISO News

Modeling Hitches Delay MISO'S Long-range Tx Work

By Amanda Durish Cook

MISO this week said it will need to pause its long-range transmission modeling effort and correct two errors so that it has the clearest picture of future grid performance.

Staff said the work will delay the release of reliability and economic models by a few weeks as they prepare a long-range transmission package.

"Modeling is the most significant effort, and it takes time to get that right," Jarred Miland, senior manager of system planning coordination, told stakeholders during a Planning Advisory Committee teleconference Wednesday.

MISO said its power flow modeling contained duplicate generation projects with signed interconnection agreements. Miland said the double counting and resource owners' self-reporting was "significant enough" to justify another reliability model run.

"It's an easy fix, but it will cause us to redispach those models," he said.

The RTO is also fine-tuning load-level modeling predictions based on transmission owners' input. The grid operator said it needs to better align its local system load level predictions with its regional projections. Through the modeling, MISO is trying to determine when increasing wind and solar generation will strain its transmission system in future years.

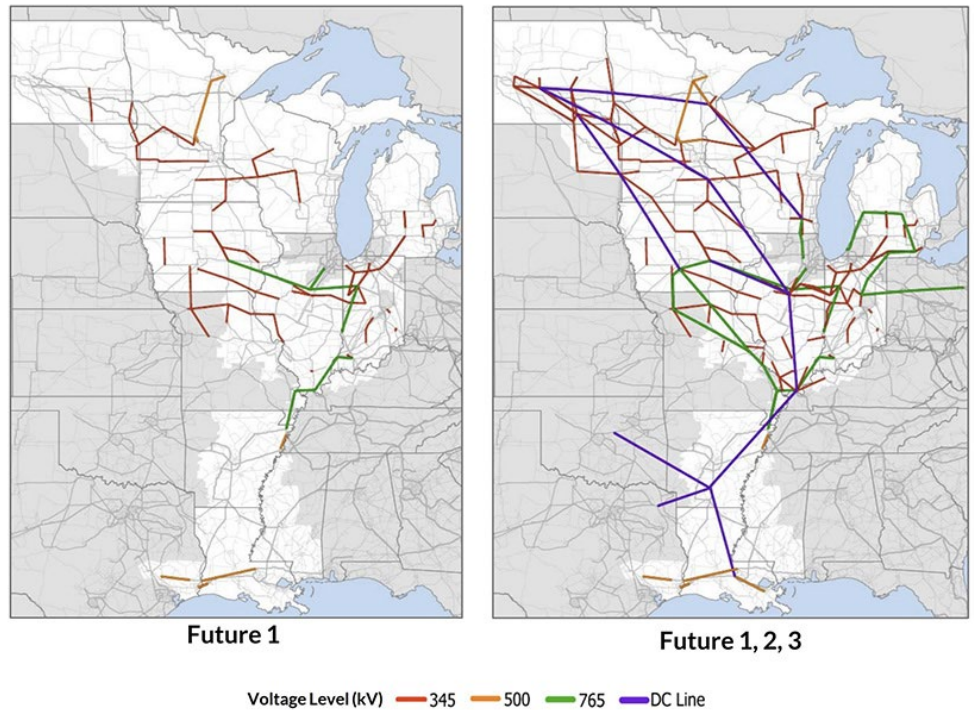
Miland said staff will debut long-range models in early June.

TOs have also asked MISO to update some transmission line ratings and line configurations in the modeling. Miland said unlike the other modeling changes, those amendments are routine.

The longer-than-expected modeling phase is holding up a reliability analysis on the long-range transmission-planning work, Miland said. As a result, MISO canceled its long-term planning workshop that was scheduled for last Friday. The next workshop is scheduled for June 25.

WEC Energy Group's Chris Plante said he was disappointed in the decision to cancel the workshop.

"This is an unprecedented ... magnitude of study," he said. "Given the unprecedented amount of work that needs to be done, I was very disappointed that you cancelled the



Possible transmission expansion under a long-range plan | MISO

workshop."

Plante said MISO planners shouldn't feel pressured to prepare a formal presentation outlining new developments in order to host a workshop. He said about 50 stakeholders have been meeting informally outside of the stakeholder process and without slides to discuss the long-range plan.

"I also want to support more conversation than less," agreed the Union of Concerned Scientists' Sam Gomberg.

Multiple stakeholders also questioned MISO's use of its 2020 Transmission Expansion Plan (MTEP 20) as the basis for its long-range modeling. MTEP 20 models don't include the transmission projects approved at the end of 2020.

Miland said waiting on completed MTEP 21 models — which do contain the 2020 crop of projects — would have further held up the long-range transmission plan. He said staff will review the impacts of the MTEP 20's higher voltage projects and may apply them in modeling, if they're deemed substantial enough.

"If there are significant additions that are really material, let us know," Miland told stakeholders.

Earlier in May, MISO executives said the long-range plan was essential because it's the RTO's only planning that looks more than 20 years into the future. They said without the planning, the grid will buckle under pressure in likely future fleet mixes. (See [MISO Stresses Importance of Long-range Tx Plan.](#))

MISO has said it may need more than a dozen 345-kV additions, a handful of 500-kV and 765-kV lines, and even a massive footprint-wide network of DC lines as part of the long-term planning package. Staff estimates the long-term transmission package could cost anywhere from \$30 billion to \$100 billion. (See [MISO Reveals Contentious Long-range Tx Project Map.](#))

The RTO's executives and planners have stressed that the footprint needs new transmission to maintain reliability through an onslaught of renewable grid interconnections.

During an Interconnection Process Working Group teleconference May 25, MISO's Jesse Phillips, manager of resource utilization, said early indications show that 2021's batch of interconnection queue entrants "may be at least as large" as the record-breaking 2020 cycle.

MISO currently has 552 projects and about 83 GW of capacity in its queue, down from 2020's highs of more than 100 GW. Solar generation

MISO News

accounts for 65% of the megawatts in the current queue.

MISO will open the queue to new project applications just once this year. Hopefuls have until July 22 to submit project proposals and documentation.

Cost Allocation Debates Continue

While MISO planners chart the possible routes new transmission could take, stakeholders are still deliberating over how the buildout's costs will be divvied up.

Stakeholders attending a teleconference on cost allocation Thursday mulled the long-range plan's ability to help avoid future emergencies during increasingly extreme weather and how that reliability benefit might be measured and translated into cost-sharing.

Members also considered how they could quantify the added reliability benefits from the system's expanded ability to move huge volumes of power long distances and ease generation's unfolding shift to renewables.

Distaste remains for a systemwide postage

stamp allocation, though some stakeholders continue to argue that it might be necessary to capture widespread reliability advantages.

Stakeholders are divided on whether MISO should use NERC reliability standards to measure transmission reliability benefits beyond a five-year planning horizon. Multiple stakeholders said NERC standards are no longer an adequate benchmark for system reliability, especially in the long term. Many said the standards have not kept pace with the energy industry's seismic changes.

"The last time we saw system change like this, the Korean War was going on. ... It was well before NERC was thought of. Those [standards] were never designed to contemplate the kind of system change we're seeing today," Xcel Energy's Drew Siebenaler said.

"Our power is freaking going out now. ... It's a crisis the South has right now," Southern Renewable Energy Association Director Simon Mahan said. "For the people down here, we can't go on like this. If the NERC standards are 'good enough,' and the load-shed standards

are 'good enough,' I'm sorry, I don't agree with that."

Mahan said NERC reliability standards were followed during the arctic event, and the system still came up short.

MISO leadership has repeatedly said the added transfer capability of MISO's last long-range transmission portfolio, approved a decade ago, helped the footprint dodge a more devastating emergency during mid-February's arctic event.

LS Power's Pat Hayes said increasing transfer capability between MISO Midwest and MISO South is vital for future system reliability.

Mississippi Public Service Commission consultant Bill Booth argued that weatherization and resource diversity will do more to help avoid serious winter emergencies.

"I don't think the solution to everything is long-haul transmission," Booth said.

"Trying to build a system on what is known today is not going to give us the system of tomorrow," Sustainable FERC Project counsel Lauren Azar countered. ■

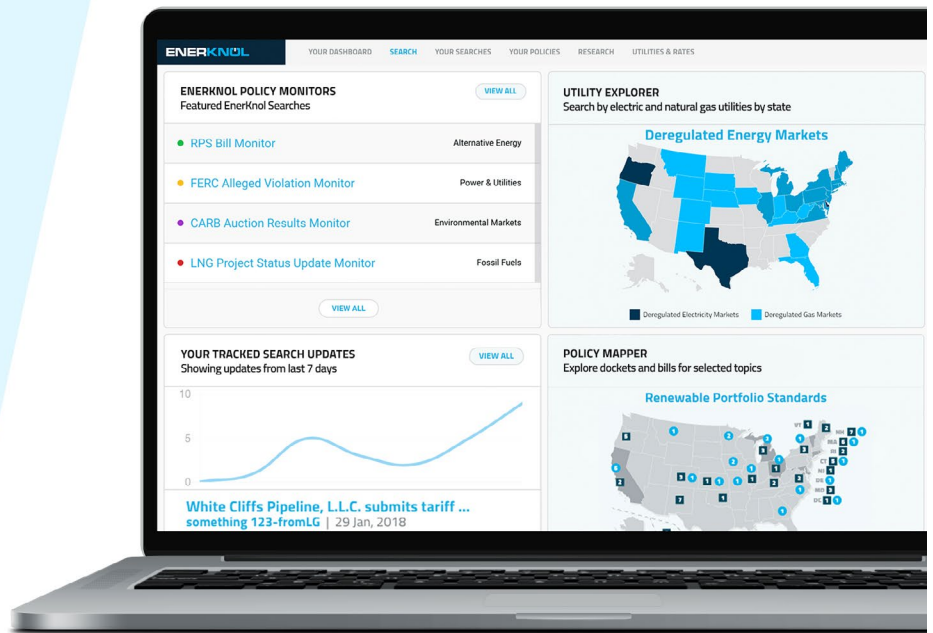
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NYISO News



NYISO Monitor Urges Market Incentives for Clean Grid

By Michael Kuser

NYISO should focus on market enhancements to incent investment in flexible generation resources that will help integrate intermittent wind and solar resources and encourage the retirement of inefficient generators, Market Monitoring Unit Potomac Economics told the Management Committee on Wednesday.

“To the extent that retirements occur, they should be resources that provide the least value, particularly in terms of flexibility and reliability,” Potomac’s Pallas LeeVanSchaick said as he reported *highlights* from the 2020 State of the Market Report. “We think it’s critical to focus in this way because ultimately the market is going to be instrumental in determining whether state policy goals can move forward at the lowest possible cost and that minimizes market disruption.”

Mixed Signals

Last year saw lower energy and capacity prices across the state compared to 2019 because long-term trends, natural gas prices, mild weather and the pandemic-related economic slowdown, but slightly higher capacity prices in New York City reflected a smaller surplus than in upstate.

“The higher prices in New York City are affected a great deal by volatile locational capacity requirements [LCRs] and installed reserve margins [IRMs], and by some departure from the market of peaking units,” LeeVanSchaick said. “We have significant concerns about the volatility of these [capacity] requirements.”

It’s important to look at net revenues and see whether they are providing the market signals needed, according to the report. The capacity market does not provide adequate locational signals. For example, the lack of a Zone A-B capacity region has contributed to a higher IRM and low LCRs in 2021/22, the report said.

“The current framework isn’t sustainable in the long term, and at some point there needs to be a capacity market that provides appropriate locational signals,” LeeVanSchaick said.

A “more urgent” issue is that the capacity accreditation of some resources leads them to be under- or overcompensated for their capacity, such as duration-limited resources and intermittent generation, the values of which fall as penetration increases. But the current rules for valuing capacity do not adequately reflect that “these resources complement each other”

because, for example, the value of battery storage can be increased by high penetration of solar generation ... so there’s a number of factors there that the current rules don’t take into account,” LeeVanSchaick said.

The Monitor is emphasizing four enhancements for the energy and ancillary services market:

- Dynamic reserve requirements
- NYC locational reserve requirements
- Compensate reserves that increase transfer capability
- Reserve demand curve increases

“In terms of the first three [recommendations] ... we’ve encouraged the NYISO to look at [them] in the context of [its 2021] Reserves for Constrained Areas project; that’s a study at this point, but I think it is looking at these three,” LeeVanSchaick said. “The fourth one is something that the NYISO recently” addressed in part with recent tariff changes. The ISO took “a step in the right direction with changes to the reserve demand curves for the larger regions ... that were recently approved.”

Regarding capacity market enhancements, the high-priority recommendations are two-fold, he said.

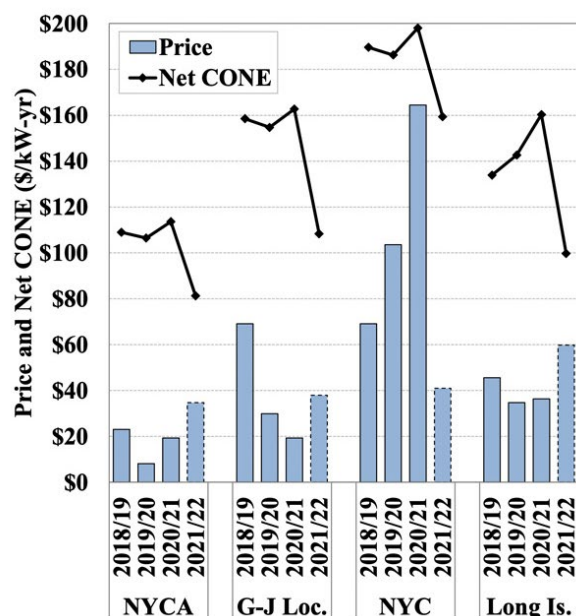
“The first, in the short term, and in an urgent sense, we have a recommendation to revise

accreditation rules to compensate resources in accordance with their marginal reliability value. This is important because with all of the new investment happening, we don’t have a sustainable set of efficient rules to help guide that investment” by compensating it in accordance with its marginal reliability value, LeeVanSchaick said. “Anything you do that waters down those incentives is going to hamper [efficient future] investment.”

The capacity accreditation also should address how the limited flexibility and availability of some long lead-time generators diminishes their reliability value. For example, just 30% of the 10.7 GW of fossil steam turbines were online in at least half of New York Control Area and Southeast New York reserve shortages in the last three years, he said.

“In the longer term, we still recommend the C-LMP [capacity locational marginal pricing], which would provide appropriate incentives for investment in each area as transmission bottlenecks shift over time; and finally, better alignment between the [New York State] Reliability Council’s IRM-setting process and other capacity market inputs would be beneficial,” he said.

LeeVanSchaick will address various topics of the report in coming Installed Capacity Working Group meetings: public policy issues June 3, capacity issues June 9, and energy and ancillary services issues June 17. ■



- Upstate prices low because of:
 - ✓ Long-term demand trends
 - ✓ Retention of upstate nuclear
 - ✓ New entry ahead of Indian Point retirement
- NYC prices affected by:
 - ✓ Volatile IRM & LCRs
 - ✓ Retirements influenced by DEC peaker rule

The changing resource mix creates major challenges, such as capacity prices not providing adequate locational signals and some resource types being under- or overcompensated, the NYISO MMU said. | Potomac Economics

PJM News

PJM MRC Briefs

CISO Avoidance Endorsed

PJM stakeholders last week endorsed a proposal and corresponding manual and Operating Agreement revisions to allow facilities to avoid being designated as critical infrastructure under NERC reliability standard CIP-014.

With an acclamation vote at the Markets and Reliability Committee's meeting Wednesday, the proposal passed with two objections and one abstention. A corresponding piece on the mitigation of CIP-014 facilities will have a vote at a future MRC meeting, PJM officials said, after some stakeholders objected to the corresponding manual changes.

Mike Herman of PJM's transmission planning department [reviewed](#) the proposed solution and manual language changes, including [Manual 14B](#) and [Manual 14F](#), to address the avoidance of future CIP-014 facilities. Herman said the stakeholder process conducted on [critical infrastructure stakeholder oversight](#) (CISO) was a "significant work effort" over the past 18 months after the issue charge was first approved at the December 2019 Planning Committee meeting. (See "Critical Infrastructure Mitigation," [PJM PC/TEAC Briefs: Dec. 12, 2019](#).)



Mike Herman, PJM | © RTO Insider LLC

Stakeholders originally endorsed the avoidance package, including associated manual language, with 77% support at the February PC meeting. (See "CISO First Read," [PJM MRC/MC Briefs: March 29, 2021](#).)

Herman said one of the biggest challenges throughout the stakeholder process on CISO has been balancing the need for transparency versus the need for confidentiality on the projects. The avoidance solution includes the study of proposed Regional Transmission Expansion Plan (RTEP) projects to ensure that no new critical facilities are created, he said. PJM sees the avoidance portion proposed as a "very valuable process."

Under its avoidance proposal, if a project creates a new critical substation, PJM will work with the proposing entity to determine if the project needs to be modified. Herman said the avoidance proposal hasn't changed in eight months of stakeholder discussions.

"This is the proactive approach to ensure that

we're not creating any new critical facilities," Herman said.

The mitigation portion, which would create a process for PJM to address facilities that can not avoid being designated as critical, will be further discussed at the PC, Herman said. PJM saw the avoidance and mitigation portions of CISO as separate processes since the inception of the stakeholder process on the entire issue, Herman said.



Erik Heinle, D.C. O.P.C. | © RTO Insider LLC

Erik Heinle of the D.C. Office of the People's Counsel thanked PJM staff and stakeholders for their work ever since his organization first brought the issue charge forward in 2019. Heinle called the process a "long and winding path" to get

to a solution on the avoidance portion of the issue.

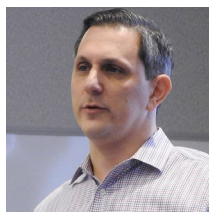
While getting the avoidance portion completed was an important step, Heinle said he wants to see work continue on the mitigation portion because the two sides go together. "We're hopeful that mitigation will be up in front of the MRC as quickly as possible."

New Service Requests Approved

Members unanimously approved the proposed [solution](#) and tariff [revisions](#) to address deficiency review requirements for new service requests. PJM proposed to change new service application deadlines to better manage the large number of requests in the queue. (See "New Service Requests," [PJM MRC/MC Briefs: April 21, 2021](#).)

Jason Connell, director of infrastructure planning for PJM, [reviewed](#) the [problem statement](#) and [issue charge](#) of the proposal, which received 100% support in a sector-weighted vote. Connell said PJM staff process new service requests under several

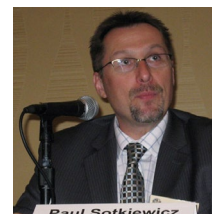
parts of the tariff and administer two new queue windows each year: one from April 1 to Sept. 30, and another from Oct. 1 to March 31. Strict timelines established by the tariff require PJM to review a new service request and issue a notice of any deficiencies within



Jason Connell, PJM | © RTO Insider LLC

five business days.

PJM's solution changes the five-day deadline to 15 or to "use reasonable efforts to do so as soon thereafter as practicable." During discussions, several stakeholders encouraged PJM to move up the closing of the queue by about three weeks to allow staff more time to review applications.



Paul Sotkiewicz, E-Cubed Policy Associates | © RTO Insider LLC

Paul Sotkiewicz of E-Cubed Policy Associates said he continues to have the same concerns on the issue he first presented at the PC, calling PJM's solution a "short-term fix at best" that won't accomplish the goal of spreading out staff's work. Sotkiewicz said

he understood that something needed to be done on the issue to satisfy FERC, but he couldn't support the proposed solution.

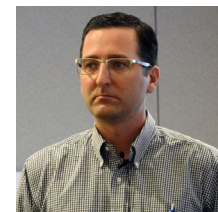
Sotkiewicz suggested PJM examine instituting a sliding scale on the cost to review projects, with companies turning in a new service application earlier in the window receiving a discount. He said the sliding scale would provide an incentive to get requests into the queue earlier.

"The way to solve this is to use a good mechanism design to provide the right incentives to get those in early, and this mechanism simply doesn't do it," Sotkiewicz said.

ICSA Addressed

Mark Sims, PJM manager of infrastructure coordination, [provided](#) a second first read of the proposed solution and associated tariff [revisions](#) addressing the RTO's concerns associated with the *pro forma* interconnection construction service agreement's (ICSA) lack of superseding language and current automatic termination provision.

Sims first presented the issue at the March MRC meeting, with stakeholders providing recommendations to PJM's proposal. (See "ICSA First Read," [PJM MRC/MC Briefs: March 29, 2021](#).) Stakeholders officially endorsed the ICSA provisions at the May PC meeting. (See



Mark Sims, PJM | © RTO Insider LLC

PJM News

“ICSA Endorsed,” *PJM PC/TEAC Briefs: May 11, 2021.*

Stakeholders’ concerns led the RTO and members to make changes to address the growing interconnection queue volume, identifying improvements in two areas of tariff Attachment P that deal with ICSAs, Sims said. Section 1 of the attachment does not contain *pro forma* language that considers when an ICSA supersedes an already effective agreement, which he said happens “fairly frequently.” The solution involved a simple revision of tariff language.

The tariff provides for automatic termination of ICSA upon the occurrence of certain conditions, he said, which can occur without PJM’s knowledge. The conditions include completion of construction of all interconnection facilities, a transfer of title, final payment of all costs or delivery of final as-built drawings to the transmission owner. Sims said PJM wants to revise the tariff language to make any termination contingent upon PJM receiving notice of the conditions from the TO.

“I feel the posted language today represents a good solution for all of us,” Sims said.

Manual 14 First Read

Nick Dumitriu of PJM *provided* a first read of proposed revisions to *Manual 14B*: PJM Region Transmission Planning Process and *Manual 14F*: Competitive Planning Process. The conforming manual language, resulting from tariff revisions accepted by FERC in December (*ER21-162*), was unanimously endorsed at this month’s PC meeting. (See “Manual 14F and 14B Updates,” *PJM PC/TEAC Briefs: May 11, 2021.*)

PJM had proposed to include capacity constraints as inputs to the market efficiency analysis for market efficiency projects in the RTEP and to clarify when capacity benefits of market efficiency projects are calculated.

Dumitriu said the Manual 14B conforming language includes adding Reliability Pricing Model (RPM) constraints to a list of constraints having an economic impact and clarifying the definition for the total annual enhancement benefit. Manual 14F changes include adding information regarding the window type and duration for RPM economic constraints in the proposal window overview, Dumitriu said. They also would add language regarding the expected in-service date for projects addressing RPM constraints in the reliability criteria project evaluation section.

The manual changes will have a final endorsement vote at the June MRC meeting.

Consent Agenda

Several manual changes were endorsed in an acclamation vote on the consent agenda:

- *Manual 03: Transmission Operations*, with revisions resulting from a periodic cover-to-cover review. Stakeholders endorsed the changes at the May Operating Committee meeting after complaints PJM didn’t provide the updated language for the first read. (See “Manual 03 Changes Endorsed,” *PJM Operating Committee Briefs: May 14, 2021.*)
- *Manuals 11: Energy & Ancillary Services Market Operations*, *14D: Generator Operational Requirements* and *18: PJM Capacity Market*, with revisions addressing public distribution microgrids. The OC unanimously endorsed new



Nick Dumitriu, PJM | © RTO Insider LLC

rules in December, and the MRC received a first read at its meeting the same month. (See “Public Distribution Microgrids,” *PJM MRC/MC Briefs: April 21, 2021.*)

- *Manual 21: Rules and Procedures for Determination of Generating Capability*, with revisions resulting from a periodic cover-to-cover review. Stakeholders unanimously endorsed the minor changes at the May PC meeting. (See “Manual 21 Updates Endorsed,” *PJM PC/TEAC Briefs: May 11, 2021.*)
- *Manual 36: System Restoration*, with revisions resulting from a biennial review. The changes were unanimously endorsed at the May OC meeting. (See “Manual 36 Changes Endorsed,” *PJM Operating Committee Briefs: May 14, 2021.*) ■

— Michael Yoder

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SPP News

Tenaska Challenges SPP Tx Upgrade Costs

Developer Wants Forum for FERC to Find ‘Equitable Solutions’

By Tom Kleckner

A Midwest wind energy developer has filed a complaint with FERC over SPP’s practice of allocating network upgrade costs, alleging that an unexpected \$66 million increase slapped onto its wind farm is unjust and reasonable (EL21-77).

Tenaska Clear Creek, an affiliate of Nebraska-based Tenaska, filed the Section 206 complaint May 21. It is asking the commission to halt a multiyear affected system study process that it said “has been characterized by systematic errors, irregularities and delays.” The company said an SPP restudy report assigning the project about \$99 million in upgrades — including \$66 million to address reliability issues that predate the facility’s interconnection — is “untenable.”

Tenaska said it filed the complaint after failing to resolve the matter with SPP and that it hoped the proceeding at FERC would help parties develop a “mutually acceptable solution.”

“Tenaska believes FERC will agree that allocating to Tenaska Clear Creek 100% of the financial consequence of SPP’s actions and the passage of time is unjust and unreasonable and should not be allowed,” Tenaska spokesperson Timberly Ross said in an email.

The 242-MW Clear Creek Project went into commercial operation in May 2020. It is interconnected with the Associated Electric Cooperative, Inc. system in northern Missouri.

According to Tenaska’s complaint, SPP’s initial studies identified about \$16 million in network upgrades associated with the Clear Creek project, but the grid operator later more than doubled the cost to \$34 million. When a higher-queued project withdrew, SPP’s preliminary restudy assigned \$763 million in upgrade costs, a figure that was revised several times down to about \$99 million.

Tenaska alleged the withdrawn projected did not affect Clear Creek’s network upgrade cost responsibility. It said the “dramatic” cost increase was a result of SPP’s decision to restart the study process with a new set of models and assumptions. They included adding in 4.5 GW of generation resources that SPP said was omitted from the project’s initial studies, according to the complaint.

Nick Borman, Tenaska’s senior vice president



Tenaska’s Clear Creek Project in northern Missouri is the subject of a complaint over SPP transmission planning practices. | Tenaska

of engineering and construction, said in a statement that the complaint was filed with “reluctance” to raise the broader question of the “appropriate method of allocating interconnection upgrade costs” to FERC’s attention.

“If renewable, or for that matter any, generation projects are to be added to the country’s generation base, certainty around interconnection costs is critical,” Borman said. “We hope FERC will realize that other, more equitable solutions are readily available that will provide the certainty needed for such investments to continue to be made.”

Tenaska warned that inaction by the commission “will certainly impact decision-making by developers of renewable projects on the SPP system and elsewhere.”

An SPP spokesperson said the grid operator is reviewing Tenaska’s complaint and is not yet ready to comment on it.



Rob Gramlich, Grid Strategies | ACORE

“I know FERC is asking a lot of questions about this, and I am hopeful that we will see some proposed reforms soon,” Grid Strategies President Rob Gramlich told *RTO Insider*.

The American Council on Renewable Energy also spotlighted the difficulties interconnection costs pose to renewable developers in a March *report* based on interviews with RTO stakeholders and market participants. (See

ACORE: Lack of Interregional Tx Planning Slowing Wind, Solar Development.)

The report says current planning processes are not designed to identify the best methods for getting renewable energy to load. It emphasized the need for a “centrally coordinated and integrated” planning process.

“There is a basic structural problem across most ISO/RTOs because of the reactive project-by-project or cluster-by-cluster approach,” Gramlich said. “RTO planners need to turn on the headlights and plan for future needs, like planners of any public utility do.”

Like other grid operators, SPP has added staff as it struggles to work through an interconnection queue with projects dating back to 2017. As of April, the backlog included 451 interconnection requests totaling 79.9 GW of capacity.

Stakeholders have complained about restudies following a project’s withdrawal, which often happens when projects are assigned high network upgrade costs. Stakeholders and staff are working together on long-term planning recommendations to re-engineer the transmission planning processes. (See “GI Backlog a Pressing Issue,” *SPP MOPC Briefs: April 12-13, 2021.*)

“Interconnection costs are wildly variable and hard to predict, so it is no wonder developers put in multiple requests. At the same time, the RTO planners are pulling their hair out over multiple requests and projects dropping out of the queue all the time.” Gramlich said, calling the situation an indication of a “dysfunctional and inefficient process.” ■

Company Briefs

FirstEnergy Dismisses More Execs. Over Consulting Payment



FirstEnergy Corp. last week fired Eileen

M. Mikkelsen, vice president of rates and regulatory affairs, as well as the acting vice president of external affairs.

The dismissals were disclosed in a regulatory filing with the SEC and is related to a previously disclosed \$4.3 million consulting payment tied to a now-former Ohio regulatory official thought to be Sam Randazzo.

The company last year fired CEO Chuck Jones and two other senior executives for violating "certain FirstEnergy policies and its code of conduct."

More: [Akron Beacon Journal](#)

Lordstown Motors Says 2021 Production will be Half of Expectations

Lordstown Motors last week said that the 2021 production of its Endurance truck will be half of prior expectations and that the company needs additional capital to execute its plans.

CEO Steve Burns said Endurance production will be limited and would be "at best 50%" of the company's prior expectations of 2,200 trucks.

Burns said the company is looking at options to raise more capital, including asset-backed financing and investments from strategic partners such as other automakers. He also said Lordstown was still pursuing a U.S. retooling loan from the Energy Department.

More: [Reuters](#)

NRC Approves PNM, Avangrid Merger

The Nuclear Regulatory Commission last week became the sixth regulatory entity to approve the merger between PNM Resources and Avangrid.

The last remaining approval needed would come from the New Mexico Public Regulation Commission, which may begin hearings in June.

More: [PNM Resources](#)

Oil Giants Face Reckoning on CO₂ Emissions



In a stunning series of events

last week, ExxonMobil and Chevron lost shareholder votes over their fossil fuel investments and a Dutch court ordered Royal Dutch Shell to cut its emissions more quickly.

ExxonMobil shareholders voted Wednesday to install at least two new independent directors to the company's board, rebuffing CEO Darren Woods over the company's weak financial performance and its actions on addressing climate change. Chevron lost a shareholder vote directing the company to consider its customers' emissions when planning reductions. Meanwhile the Hague District Court ordered Shell to cut its carbon emissions by 45% by 2030 from 2019 levels, saying the company's current reduction plans were not concrete enough.

"This is a watershed moment for the oil and gas industry," said Fred Krupp, president of the Environmental Defense Fund. "It's no longer tenable for companies like ExxonMobil to defy calls to align their businesses with decarbonizing the economy."

More: [The Washington Post](#); [The New York Times](#)

PG&E to Pay \$150M for Botched Outages, Wildfires



Pacific Gas & Electric will pay \$150 million in fines and settlements because of Northern California wildfires over the past two years and the mismanagement of blackouts designed to prevent the utility's power grid from causing more damage.

The Public Utilities Commission last week fined the company \$106 million for its mishandling of power outages in 2019. At the same time, the utility also agreed to \$43.4 million in settlements with government agencies in three counties ravaged by wildfires ignited by its equipment in 2019 and 2020.

Although PG&E is being fined \$106 million, the utility won't be paying that much now as it is being credited for \$86 million that it had already been ordered to refund to customers affected during the outages.

More: [The Associated Press](#)

PSE&G Names New President

Public Service Electric & Gas last week announced that Kim Hanemann will succeed David Daly as president of the company, effective June 30. She will become the first

woman to head the utility in its 118-year history.

Hanemann joined the utility as an associate engineer out of Lehigh University in 1986.

More: [NJ Spotlight News](#)

Sunrun Teaming with Ford on Home Backup Systems



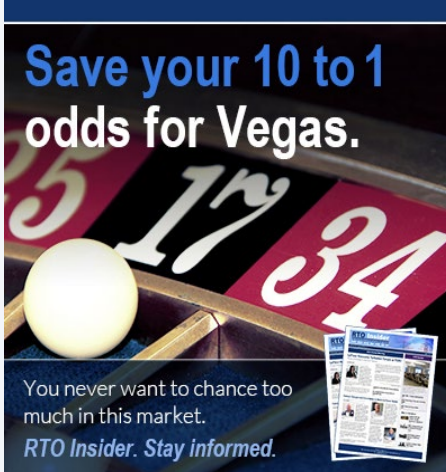
Shares of rooftop solar provider

Sunrun rose more than 6% after it was announced as the preferred installer for Ford's Intelligent Backup Power system, which the carmaker is pairing with its new all-electric F-150 Lightning pickup truck. With Ford's 80-amp Charge Station Pro and home integration system, the truck can provide backup power to a home during outages.

The partnership will provide strong competition to electric vehicle market leader Tesla, according to John Tough, managing partner of Energize Ventures, a venture capital firm focused on digital innovation.

"Last year there were 350,000 plug-in vehicles sold in the U.S. For comparison, there were 900,000 Ford F-150 trucks sold domestically in 2019. If Ford can electrify this customer interest, the EV adoption curve will step-change," Tough wrote in *Forbes*. "... If 5% of F-150 drivers adopt rooftop solar via Sunrun that will add another 50,000 rooftop solar homes to market each year. That partnership alone could increase rooftop solar installation in the U.S. by 20-30%."

More: [Forbes](#); [Sunrun](#)



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Federal Briefs

EPA Aims to Give States More Power to Block Pipelines



The EPA last week said it is aiming to rewrite Trump-era regulations that curtailed states' and tribes' abilities to protest major energy projects that threaten rivers,

lakes and streams.

The agency said it will rewrite a rule finalized last year that upended the way the Clean Water Act worked and will now potentially allow state officials to take a broader array of environmental concerns into account when deciding whether to approve major construction that could defile bodies of water. While the Biden administration did not offer specifics on how it will amend the rule, the decision comes as the construction of new oil and gas pipelines has emerged as a point of tension in Biden's infrastructure push.

Under the Clean Water Act, the federal

government cannot issue permits for any construction that potentially pollutes waterways without getting permission from states and tribes. However, the Trump administration limited the amount of time local officials had to review projects and restricted them to only consider impacts on water quality.

More: [The Washington Post](#)

Utilities' Spending on Electric Distribution System Increases

Annual spending on electricity distribution systems by major U.S. utilities continues to increase, as utilities spent \$57.4 billion on electric distribution in 2019 – 6% more than the previous year and 64% more than they spent in 2000 after adjusting for inflation, according to the EIA.

More than half of utility distribution spending in 2019 went toward capital investment (\$31.4 billion) as utilities worked to replace, modernize and expand infrastructure. Another \$14.6 billion paid for operations and

maintenance, while \$11.5 billion went to customer expenses, which include advertising, billing and customer service.

In 2019, most of the \$31.4 billion distribution system capital investment (40%) was spent on power lines, both underground (23%) and overhead (17%).

More: [EIA](#)

Wind, Solar Generation Set New Production Record in March

Wind and solar generation set a record this March by accounting for 16.8% of total U.S. production, according to the EIA.

Solar and wind output during the month was 34.3% greater than the same time last year. Solar and wind increased by 24.3% and 10.5%, respectively, in the first quarter and grew by a combined 13.6%. Together they accounted for more than one-eighth (12.8%) of national generation.

More: [Renewables Now](#)

State Briefs

CALIFORNIA

San Diego City Council Approves New Franchise Agreement with SDG&E

The San Diego City Council last week voted 6-3 to approve a new 20-year electric and gas franchise agreement with San Diego Gas & Electric.

Under the deal, SDG&E agrees to pay the city \$80 million (\$70 million for the electric franchise and \$10 million for the gas franchise), and \$20 million to help advance the city's climate equity goals. The utility will also pay \$10 million for programs aimed at increasing access to solar power and rebates for residents living in underserved communities.

The agreement runs for 10 years with an automatic renewal for another 10, but it has a window for the city to opt out if it wishes.

More: [The San Diego Union-Tribune](#)

ILLINOIS

Energy Working Groups Continue Amid New Indictment

Nearly 50 legislators identifying as the

Legislative Green Caucus signed a letter last week asking leadership to make equity and utility accountability the foundation of an energy overhaul bill that was expected before the General Assembly adjourned at the end of May.

The letter was sent to Senate President Don Harmon and House Speaker Emanuel Welch last Wednesday, the same day federal prosecutors indicted Tim Mapes, former chief of staff for ex-House Speaker Michael Madigan, for allegedly lying under oath and attempting to obstruct justice.

Rep. Ann Williams, the sponsor of the Clean Energy Jobs Act and a signatory on the letter, said that an energy working group is continuing to work for a compromise, but is unsure when a final package will be released.

More: [Illinois Newsroom](#)

INDIANA

State Awards Utilities \$5.5M To Build EV Charging Stations

The Department of Environmental Management last week announced it will award eight electric utilities more than \$5.5 million

to set up charging stations for electric vehicles across the state.

Members of the Indiana Utility Group will build 61 DC fast charging stations and will provide partial matching dollars for the program.

Most of the stations should be complete by the end of 2023.

More: [WFYI](#)

MAINE

Gov. Mills Nominates Energy and Utilities Expert for PUC



Gov. Janet Mills last week nominated **Patrick Scully**, an energy and utilities expert who was recently CEO of Bernstein Shur, to serve a six-year term on the Public Utilities Commission.

In his 36 years with Bernstein Shur, Scully was among the state's most knowledgeable attorneys in municipal, energy and utility regulations, according to Mills. He joined the firm in 1984 and was

named CEO in January 2014 before retiring at the end of 2019.

Scully's nomination is subject to review by the Joint Standing Committee on Energy, Utilities and Technology and final confirmation by the state Senate.

More: [Maine.gov](https://www.maine.gov)

MASSACHUSETTS

Mayflower Wind Strikes Brayton Point Deal

Mayflower Wind last week said it intends to shift the landing point for the power produced by its future wind farms to its Brayton Point plant. The plant was coal-fired until it was taken offline in 2017.

However, Mayflower Wind would need to win a second state procurement and go through a lengthy permitting process before construction of a power line to Brayton Point could begin. The company, which plans to compete for the state's next offshore wind procurement, snapped up the Brayton Point connection by acquiring transmission rights developed by Anbaric Development. Terms of the deal were not disclosed.

More: [CommonWealth Magazine](https://www.commonwealthmagazine.com)

MICHIGAN

UPPCO Investor Change Approved by PSC, FERC

The Upper Peninsula Power Company last week announced that the Public Service Commission and FERC have approved the transfer of the company's stock to an affiliated entity of Axium Infrastructure US Inc.

Axium is an independent portfolio management firm that is dedicated to long-term investments, including utility infrastructure and renewable energy assets.

The sale is expected to close in June 2021.

More: [Upper Michigans Source](https://www.uppermichigansource.com)

TEXAS

CPS Energy Rate Increase 'an Inevitability'



CPS Energy CEO Paula Gold-Williams last week said that while the company did not request a rate increase during its regularly scheduled board meeting, it is "an inevitability."

According to options being considered by CPS, customers could see their monthly bills go up between 6.5% and 9.5%, which would be \$9.70-\$14.60 per month for the average customer.

The CPS Board of Trustees and the San Antonio City Council would have to approve the increase before it could take effect, which could come as soon as this fall. It would be the company's first increase request since 2013.

More: [San Antonio Report](https://www.sanantonio.com)

Lubbock, LP&L Board Approve Buyout from Southwestern Public Service

The Lubbock City Council and Lubbock Power & Light's Electric Utility Board last week approved a \$77.5 million buyout of LP&L's 25-year contract with Southwestern Public Service. Under a settlement agreement up for approval, long-term bonds will fund the buyout and total \$4.1 million a year.

In January 2018, the city council and the utility board signed resolutions of intent to bring competitive retail electricity back to Lubbock. The contract between LP&L and SPS tied Lubbock to the SPP, where competition is unavailable. The termination of the contract will allow the remaining 30% of customers to migrate to ERCOT in a few years.

LP&L is currently paying SPS more than \$17 million a year in capacity costs for the right to purchase electricity. The contract began in 2019 and is set to run through 2044.

More: [KCBD](https://www.kcbd.com)

Plano Denies Oncor's Request to Raise Rates

The Plano City Council last week voted unanimously to reject Oncor's request to raise its distribution rates.

Oncor, which is seeking an overall increase of approximately \$98 million, filed an application April 8 asking the Public Utilities Commission to approve amending its distribution cost recovery factor, which would increase rates with each city in the company's service area.

Plano and other cities are voting according to guidance from a steering committee of more than 140 cities in north and central Texas that Oncor serves. The committee is preparing a uniform response to the request and will work together on future negotiations or potential litigation.

More: [The Dallas Morning News](https://www.dallasmorningnews.com)

WISCONSIN

Alliant Reaches Deal to Recover Costs Tied to Clean Energy Transition



Alliant Energy last week reached a deal with consumer advocacy and environmental groups to recover \$85.7 million in expenses tied to its clean energy transition as the utility plans to raise electric and natural gas rates next year. The proposed agreement was filed with the Public Service Commission.

If approved, Alliant said the average residential customer can expect to pay about \$8.50 more per month on their electric bills while natural gas customers would pay roughly \$5 more per month.

Alliant said it needs to raise rates to help fund a more than \$1 billion investment in 1,100 MW of solar, in addition to recovering around \$500 million in investments made in its Edgewater coal plant that's set to be retired next year.

More: [Wisconsin Public Radio](https://www.wisconsinpublicradio.com)

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